DOCUMENT RESUME

ED 031 663 AC 005 076

By-Gowin, D.B.; Daigneault, George H.

The Part-Time College Teacher.

Center for the Study of Liberal Education for Adults, Brookline, Mass.
Pub Date 61
Note-71p.
EDRS Price MF-$0.50 HC-$3.65
Descriptors-Bibliographies, *College Faculty, Educational Theories, Employment Practices, Experimental Programs, Higher Education, Internship Programs, *Part Time Teachers, Program Evaluation, *Teacher Education, Teacher Recruitment, *Teacher Selection
Identifiers-University of Bridgeport

This report discusses college faculty enlargement through the expanded use of part-time teachers. A review of current practices shows the most fruitful source of part-timers to be local business and industry, professional colleagues of the full-time faculty, and graduate students. There is little evidence, however, that part-time teachers are encouraged to use their professional competence, that they are accepted as professional equals or regarded as professional assets. Few universities report any kind of training or supervision programs. There is wide variance in the practice of employing part-timers and in the way they are used. A University of Bridgeport program is used as an illustration of an experiment in taking unexperienced interns and introducing them to various teaching methods. The basic theme of the study is that to prepare a person from another profession for teaching, such a program has to stress theory. Once the basic ideas are made explicit and their relevance discovered, it remains only for the professional to learn to pursue his discipline in an expanded framework of educational theory to become a person worthy of being a college teacher. (dm)

ED031663

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

The Part-Time College Teacher

CENTER *for the* STUDY OF LIBERAL EDUCATION FOR ADULTS

AC 005 076

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY James A. Whipple
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE U.S. OFFICE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

The Part-Time College Teacher

D. B. Gowin
Assistant Professor
Department of Education
University of Chicago

In collaboration with

George H. Daigneault
Staff Associate
The Center for the Study of Liberal Education for Adults

CENTER *for the* **STUDY OF LIBERAL EDUCATION FOR ADULTS**

Ac 005 076

THE CENTER *for the* **STUDY OF LIBERAL EDUCATION FOR ADULTS** was established as the result of a grant from the Fund for Adult Education to work with the universities providing liberal education for adults. The official purpose of the Center is to "provide aid and leadership to the forces that can develop the evening college and extension movement into a more effective instrument for the liberal education of adults." Communications may be addressed to the Director, 4819 Greenwood Avenue, Chicago 15, Illinois.

Publications of the Center are listed on the inside covers, with information as to how they may be obtained.

Copyright 1961 by the Center for the Study of Liberal Education for Adults. All rights reserved.

Published 1961

PRINTED IN U.S.A.

FOREWORD

The Center presents this Research Report as a part of its interest in and support of new directions in faculty development. The report is based upon a more elaborate and extensive study conducted by Mr. D. B. Gowin and his colleagues at the University of Bridgeport as part of a series of studies on the improvement of teaching sponsored by the Fund for the Advancement of Education.[1] The importance of this particular study to the adult education administrator with its focus on the part-time teacher is obvious. In addition to suggesting new ways of recruiting, selecting, and preparing part-time evening college teachers, Gowin urges us to regard them as bona fide members of the teaching profession as well as experts in subject matter outside the university, and to provide them with the perquisites and expect of them the duties that would be expected of the professional teacher within the university. Gowin also presents evidence that a program of careful preparation will in fact modify the ideas and attitudes which the prospective teacher holds about teaching.

The Center believes that this thoughtful and provocative statement not only presents a model for consideration of administrators and teachers, but raises some important questions about the image of the part-time teacher and who is responsible for it.

George H. Daigneault

---

1. D. B. Gowin, K. A. Chandler, G. L. Newsome, Jr., J. W. Nystrom and D. E. Payne, "An Experimental Study of Part-time College Faculty," an unpublished research report of a study supported by the University of Bridgeport and the Fund for the Advancement of Education of the Ford Foundation, 1958.

PREFACE

The bias of the study director and his research associates needs to be made explicit at the outset. The associates in this research were Kenneth A. Chandler, George L. Newsome, Jr., J. W. Nystrom, and Donald E. Payne. In the first place, the work was considered to be of an experimental nature. The choice between experimental research and administrative implementation of a program consistently favored experimental research. The point of the study was not to plan and operate, without controls and experimental design and analysis, just anything which would work. Rather the point was to rely on theory as a guide to practice and a source of new dimensions for the task of studying college teaching. It is not expected that the solution was uncovered, but recent professional knowledge, particularly in philosophy and psychology, was drawn upon extensively in providing a solution.

Secondly, the basic question was not whether part-time college teachers will be employed; there was no doubt that they will be used in some fashion or other, perhaps more frequently than now. The basic question was how to improve instruction by selecting current theories in philosophy, psychology, sociology, and pedagogy and bringing them to bear upon current problems of college teaching.

Thirdly, while the study was focused upon the new part-time instructor, it need not be so limited. It is relevant to any attempt of college teachers to prepare for their teaching assignment. In the Faculty Workshop, many full-time faculty members found enlightenment and encouragement—and to some extent perplexity—in facing afresh the problems of preparation for teaching in college classes.

Finally, while a survey of current practices and policies concerning the part-time instructor was made, it was not from this description of the status quo that the design for the preparation program came. The turn was away from practices and toward theories to find guides—in spite of considerable doubt among some that education could be studied theoretically, or scientifically. There is evidence that few administrators or

teachers theorize in their work: Coladarci and Getzels[1] suggest that administrators tend toward "factualism" and that teachers tend to "personalize"; neither group theorizes. To avoid the evils inherent in a mere perpetuation of the status quo, to avoid the evils of the "give-'em-a-shot-in-the-arm" approach, theory and professionalism were stressed. Theory was, in a real sense, put to the test in this study.

D.B.G.

---

1. A. P. Coladarci and J. W. Getzels, The Use of Theory in School Administration (Stanford, Calif.: Stanford University Press, 1957), pp. 10-14.

ACKNOWLEDGMENTS

While in no way responsible for the final outcome, several persons were helpful in this work. They include Professors Willard Berggren, John S. Brubacher, Claude Buxton, Robert Dubroff, Henry W. Littlefield, Ernest McMahon, Louis Raths, and Anita Riess.

In addition many full-time and part-time faculty members at the University of Bridgeport and elsewhere contributed time and thought.

D.B.G.

TABLE OF CONTENTS

	Page
Foreword	iii
Preface	v
Acknowledgments	vii
Introduction and Background	1
Patterns of Expectation	2
Current Practices	5
Locating Part-Time Teachers: Two Approaches	9
A Community Survey	9
Procedure	10
Results	10
Industrial Research Personnel as Potential Part-Time Faculty	15
Qualifications of Research Personnel	16
Interest in Part-Time College Teaching	17
Conflict of Interest	18
The Viewpoint of Industrial Research Laboratories	20
Summary and Conclusions: Status and Availability of Part-Time Teaching Personnel	21
An Experimental Program in Recruiting and Preparing Part-Time Teachers	24
Recruiting the Faculty Interns	24
The Preparation Program	26
Aims of the Seminar	28
Agenda of the Seminar	33
Excerpts from the Chronological Log of Faculty Intern Seminar	34
Postscript to Chronological Log	52
Conclusions: Evaluation of the Experiment	53
Appendix	56
Bibliography	59

INTRODUCTION AND BACKGROUND

The part-time teacher has been overlooked. Few serious studies in higher education have concerned him. Yet urban universities and evening colleges depend heavily upon part-time college faculty members.

Part-time faculty members now carry to a significant degree the instructional responsibilities for both graduate and undergraduate students. (In universities recently sampled where the students number less than 4,000, approximately 39% of the total teaching staff is composed of part-time teachers.) With the expanding college population and the decreasing number of comprehensively prepared persons available for full-time college teaching positions, the use of part-time college faculty members is likely to increase. Since this extensive use of part-time teachers and the anticipated increase in their number is not greeted universally as desirable, better "quality control" will have to be exercised in the recruitment, selection, and preparation of these often peripheral members of the college community.

This study concerns the preparation for college teaching of an experimental group of new part-time college faculty members through a pre-service program involving educational theory (philosophy, psychology, sociology) and educational practices. In addition, the study includes surveys of current practices of urban universities in using the part-time faculty member, and the availability of professional persons qualified for college teaching on a part-time basis.

The full-time occupation or status of the potential part-time teacher is an important factor in planning a program of pre-service instruction for him. The person who teaches part-time is usually involved in some full-time occupation requiring professional demeanor. If potential new faculty members, considered to be professionals in their full-time occupations, were to be encouraged to approach the problems of teaching in a professional manner, professional knowledge and skills already possessed would have to be expanded in some way to help cope with the new, and professional, problems of college teaching. The aim of the pre-service prep-

aration program was to stimulate mature, professional people to become acquainted with and to accept gladly the intellectual challenge and the emotional involvement of teaching. The following quotation defining a profession suggests some of the characteristics which the study was designed to encourage and develop.

> THE COLLEGE TEACHER'S JOB—By nature, a profession cannot be defined with precision: its limits are not fixed, its constituent processes not analyzable to the last detail. It is a calling which values talent more than technical proficiency, creative originality more than orthodoxy, responsibility to self more than subservience to the will of others. Its rewards derive from satisfaction in service rendered as much as from material return. The practice of a profession varies with each practitioner and the circumstances under which he works. A profession is never finally mastered: its foundations of knowledge keep growing, and new demands and responsibilities are constantly being added. So with college teaching.[1]

Many persons holding full-time appointments in colleges and universities actually teach only part-time. Indeed, some teachers who teach only one course a semester—ostensibly part-time—may actually be the only full-time teachers, since they give all of their teaching time and effort to one group of students and one subject field. It may be that they have a full-time teaching job, but receive only part-time pay.[2] This study is, however, primarily concerned with the person who does not hold a full-time academic appointment but who teaches one college class (or possibly two) part of each week during a semester. This definition is frequently used in urban universities. The question is how to recruit, prepare, and utilize him as a valued educational resource in a time of increasing need.

Patterns of Expectation

The following statements—composites of opinions taken from interviews with deans and directors of representative evening colleges—indicate different patterns of expectation for part-time teachers.

University A

> In my opinion, part-time faculty should only be used as a "stop-gap" measure, except in a very few fields of a highly specialized nature.

---

1. J. Justman and W. H. Mais, College Teaching: Its Practice and Its Potential (Harper & Brothers, 1956), p. 25.

2. This comment is attributed to Professor Clyde M. Hill, Emeritus Professor, Yale University.

Although the part-time faculty are paid less, usually, than full-time faculty, I am not so certain that they do not cost a university more in the long run. It has been my experience that the average part-time faculty person, when compared with the professional teacher, is not so skilled a teacher, not so devoted to his work (his principal interest obviously is in his full-time job), is not well informed regarding the workings of the university, is an easy-grader, cannot spare much, if any, time working with students outside of class, etc. This does not mean that I am not grateful to the part-time teachers that we have employed. My point is that one cannot expect the average part-time teacher to perform as well as the full-time teacher.

University B

This evening college has been using part-time faculty successfully for some thirty years. Had we not been able to call upon the services of such a group, this institution could not have met its obligations to the community. In areas such as Industrial Management, the part-time man can do a better job than the full-time teacher. In many other areas the size of our day departments is not great enough to meet the demands during evening hours. For the past several years half of the evening faculty are drawn from the day divisions, half from off-campus. We have been able to work successfully with this ratio but believe we should not let it go beyond the fifty per cent mark.

University C

We believe that the use of a reasonable number of part-time faculty, particularly in the fields of business, often makes possible the provision of more expert knowledge than does use of the full-time faculty. It also makes possible more flexibility in scheduling, since it frequently is a hardship for full-time faculty to teach late evenings and early mornings. By and large, the use of part-time faculty has worked very well for us. We believe that in a large urban area there are many individuals with excellent academic training, broad experience, and stimulating minds who can add greatly to the faculty resources. We feel that, in the impending "tidal wave" of students, much greater use of carefully selected instructors from outside the University will be an important means of preventing overwork of "regular" faculty and of keeping the doors open to the large numbers of students expected. The enrichment of the lives of the individuals so chosen is an important by-product also.

The patterns of expectation of university administrators obviously vary. Many administrators are reluctant to expect the same performance from a part-time teacher as from a full-time faculty member. Practical experience lends support to this reluctance because the part-timer has not, in point of fact, been as well prepared for teaching as the full-time teacher, although there have been some notable exceptions.

Implicit in the administrators' statements are two patterns of expectations. Pattern I, based on observation of current practices and the

testimony of deans and directors, is not too different from what actually happens in many universities today.

First, when student enrollment bulges, a dean, harassed and pressed to cover large classes, picks up the telephone and calls for a part-time instructor. The instructor is selected by these criteria: can he teach at a specified time (usually evening or odd, 6:15, hour) for a small amount of money? He is "prepared" for teaching by a talk with the dean, by an introduction to a full-time faculty person, by an invitation to the one dinner held during the semester, and by a handbook which may or may not be given him. He is told where the class meets, where his mail box is, and when he will receive his check. The grade book contains detailed instructions about how often to give a test, how to keep attendance, and how to record grades. He is not expected: to attend faculty meetings; to advise students; to be generally available to the college community; to do academic research either for his teaching or for publishing; or, necessarily, to be a master of the field in which he teaches. He probably holds a Master's degree.

This approach seems to be non-professional, requiring little grasp of theoretical and philosophical aims of education, little grounding in the basic issues of higher education, little respect for that function of a university which is to create new horizons for students and new additions to knowledge. Practical experience is frequently thought of as a substitute for professional competence.

Finally, in the absence of much supervision or evaluation, the success of this part-timer is judged by the number of complaints (even two or three would be a serious indictment) received by deans from students. Mediocrity is not only tolerated, but positively encouraged under such conditions.

Pattern II presents a view of what is possible as a composite of some of the best administrative policies. The dean does not wait for enrollment to bulge; he reads enrollment statistics and decides that he is going to need more qualified teachers. He tries systematically to discover abundant sources of potential teachers.

The next step is not merely an induction-orientation-indoctrination program; it is an educational program. At this point, theory comes in. The distinction between the brief orientation and the fullblown educational

program is that the latter stresses theory, the former, technique. The dean may run a professional seminar, or he may turn it over to educational experts who teach theory as a part of their own academic teaching load.

The part-timer is expected to be responsible, creative, independent, professional, and stimulating not only to students but to other faculty members. He is a master of his field, and provides a service not otherwise available to students. Being professionally competent, he is brought into faculty counsels for discussion, planning, and creation of curricula. The chief inducement is an opportunity to take on more—not less—responsibility; this is in keeping with his professional status. He may be encouraged to do academic research and to publish. He is not hired because he is cheaper; he is as expensive and potentially as valuable as the full-time person who might also teach the same course.

The standards against which he is judged are professional standards. Although he is expected to be effective in relation to students, a student popularity poll is not the sole criterion of his worth to the academic community. The university gives a great deal to this man—recognizes him as a professional and contributes to his professional growth. On the other hand, high professional competence is expected of him.

In the first pattern, the part-timer faces the problem of dual loyalties, and in the eyes of the university his first loyalty is to his full-time job. In the second pattern, the profession of teaching augments the profession the person engages in outside the university; instead of a conflict of interests, as in the first pattern, there is a wider sharing of interests and an intensification of effort. The relation between the administrator and the part-timer is not one of simple and selfish barter, as in the first pattern, in which each party seeks to exploit the situation for all it is worth. Rather, the mutual dedication to common loyalties approaches public service in the highest sense.

Current Practices

Documentation for the existence of these two patterns of expectation was obtained from questionnaires[3] sent to thirty-nine urban universities.

---

3. Gowin, et al., "An Experimental Study of Part-time College Faculty," pp. 5-27.

Thirty-six returned fully completed forms. The questionnaire data suggested a division between large and small universities at about the point of a student enrollment of 4,000. There was little significant difference between the large and the small universities in the ratio of part-time to full-time faculty.

The universities had widely varying standards for appointment. Moreover, the dominant occupations of each community were likely to foster an uneven distribution of specialized talent available for part-time teaching. The different standards for selection held by the university and the relative richness of the surrounding communities combined to make the task of selection different in each university.

The most fruitful sources of part-timers were found to be: first, local business and industry; next, the professional colleagues of the full-time faculty members; and third, graduate students. The responsibility for locating and employing part-time faculty was found to lie most often with department chairmen, and next with the dean.

The quality of the part-time faculty as evidenced by degrees held revealed several things. The large universities employed a significantly higher percentage of Ph.D.'s—both full- and part-time—than did the small universities. The first criterion for employment of part-time faculty members in large urban universities was found to be "professional competence" with "teaching ability" as the second criterion. These two criteria were found to be vastly more important than degrees held, personal qualities, or practical experience. Smaller universities indicated the same criteria, but with more emphasis upon degrees held.

The emphasis placed upon professional competence by urban universities in employing part-time faculty members is of particular significance for formulating policies of recruitment, preparation, and utilization of part-time college teachers. The findings suggest a need for seeking out sources of professional talent, developing programs stressing professional preparation for college teaching (as opposed to superficial orientation and stress on practical techniques of college teaching), and formulating policies for utilizing part-timers as professionals (as opposed to stop-gap utilization).

The pay (in 1958) for part-time college teaching ranged from $120 to $180 per credit hour in both large and small universities. The most

widely used criteria for determining the pay of the part-time teacher were degrees held, teaching experience, and quality of teaching. Inducements given in the form of privileges were often those that cost the university nothing (such as free use of the library, publicity, and bookstore discounts). Inducements such as group insurance plans and medical-dental facilities were less common, though practiced in some cases.

The titles and responsibilities of part-time faculty members varied, but the most widely used title was "Lecturer" and the most common responsibilities other than teaching were departmental meetings and advising students about programs. These latter two responsibilities, however, were not frequently expected of the part-timers. Although the chief criterion for employment was professional competence, the policies set up for utilizing part-timers suggest they were treated as non-professional employees.

There seems to be little evidence that the part-time teacher was encouraged to utilize his professional competence in curriculum planning or other professional activities, that he was taken into the faculty as a professional equal, or that he was treated by the university administration as a valuable professional asset.

The disadvantages in the utilization of part-time faculty members stated by college administrators point up further the generalization that universities fail to use part-timers to best advantage. The most outstanding disadvantage of part-time college teachers as judged by the administrative officials was "unavailability to students." The second major disadvantage was "lack of institutional orientation," followed by "unavailability to general college community."

Very little pre-service preparation of the part-time faculty member was reported. Only eighteen out of the thirty-six universities reported <u>any</u> kind of program. The typical pattern of these eighteen was a conference with the department head, or dean, or director of the evening division concerning college routines and student relations. Four universities indicated discussing theories of learning; nine mentioned philosophy of education; eight noted something on the adult learner; ten mentioned methods of teaching. Hence, it may be concluded that pre-service preparation, if given at all, is devoted primarily to institutional orientation, to techniques and methods of teaching. Very infrequently is anything

given concerning the fundamental theories of learning or philosophies of education.

Even fewer universities report any kind of in-service program for the part-time faculty member. Only twelve out of the thirty-six reported that some kind of in-service program was attempted. The pattern of the in-service program follows that of the pre-service program described above. The same conclusion may be drawn: very little is currently being done, and what is being done accentuates the practical.

Supervision of the part-timer is also infrequent. While twenty of the thirty-six universities reported some observation of the classroom teaching of the part-timer, the accompanying comments indicated that such observation was rare. The comments about observation were "when requested or needed," "at the discretion of the department head," "varies," "irregular." Supervision typically involves an individual conference with the dean or the department head.

Evaluation of the part-time faculty member takes two forms. Student evaluation is sometimes sought, and evaluation by full-time faculty members is sometimes given. Twenty-five of the thirty-six universities indicated that student evaluation was obtained by "casual comments to dean or other faculty member." Seven universities indicated that systematic appraisal by student reaction was taken, but that it occurred infrequently —"as needed," "occasionally every two years," "at discretion of instructor," "no set pattern." The full-time faculty members do evaluate to some extent the work of the part-timer. Twenty-four universities reported departmental analysis of grading practices; twenty-three reported inspection of examinations; twenty-one reported demanding approval of course objectives; thirteen reported comparisons of student achievement through standardized tests.

Although there is a geographical bias in this sample, favoring the northern and eastern parts of the United States, opinions of readers of the original research report suggest that it does not seem to be very wide of the mark in other areas.

LOCATING PART-TIME TEACHERS: TWO APPROACHES

Colleges need to take the initiative in seeking out qualified part-timers for their faculties. Academic channels customary for finding full-time faculty members are not so useful in leading to the professional who will be appropriate for part-time teaching.

Where can the non-teaching professional be located? One answer for universities granting professional degrees can be found in alumni files. Information about the full-time positions of alumni can provide helpful categories of occupations. Some professionals are working for industrial research laboratories; some for governmental agencies, including the Armed Forces; some are working for themselves in private consulting firms; and some work for themselves as artists, historians, and critics.

Each college must, to some extent, devise its own procedures. Two surveys are reported here of the steps one college took. These surveys are offered as illustrating, and not as exhausting, possible approaches. One survey was of a local community, seeking out names from various professional organizations. The other survey was of industrial research laboratory personnel on the East Coast. The basic questions are the same. Are these people qualified to teach in college? Are they interested? Are they willing to learn something about the particular college and about the problems of teaching? Are full-timers willing to select them as qualified members of the faculty, and to accept them as professional colleagues?

A Community Survey of Potential Part-Time Faculty

The local community surrounding a college is an obvious first place to look for part-time teachers. To test this resource and the method of seeking out professionals, the communities of Bridgeport and Fairfield, Connecticut, were surveyed in February of 1958. The point was to uncover new sources of teachers, for to rob the high schools or borrow from other colleges would be no real gain.

Some pre-selection was made of the groups to be canvassed. The groups chosen were ones in which it seemed reasonable to expect to find

both quality (insofar as qualifications for teaching are concerned) and interest. Consequently the groups approached were college graduates—in other words people who might reasonably be expected to have some continuing interest in college and the problems of college education.

Procedure

With the co-operation of several different organizations (the American Association of University Women, the Fairfield Medical Association, the Greater Bridgeport Personnel Association, Smith College Alumni, the Society for the Advancement of Management, Yale University Alumni, and Phi Beta Kappa), a list of potential part-time teachers was compiled. Each of these persons was then contacted by mail. Through this procedure a total of 1,445 letters was sent.

The letter described briefly the purpose of the program and pointed out that only information was being sought at this stage. The subjects were given an opportunity to respond by means of postal cards to indicate either (a) that they were not interested in the program, (b) that they were interested in the program and would be willing to (1) complete the personal data form and (2) undertake a pre-service preparation program. The personal data form itself was a fairly long and detailed questionnaire requesting information regarding—in addition to other things—age, sex, highest degree earned, field in which the subject felt qualified to teach, experience in teaching, professional experience, and professional certification.

Results

The over-all return on the investment in letters is reported in Table 1.

As the table indicates, of the groups contacted the average number who expressed interest in part-time teaching generally hovered close to the over-all thirteen per cent. Of those who confessed to an interest in part-time teaching, approximately two-thirds also were interested in a preparation program. Of every six persons contacted, at least one expressed interest in the program to the extent of completing and returning the personal data form.

Having determined that there was, in fact, interest in part-time teaching among the selected sample, the next question was: What sort of people are these who profess an interest in teaching?

Table 2 presents a list of the major fields represented among the re-

TABLE 1

INTEREST IN PART-TIME TEACHING SHOWN BY PERSONS IN LOCAL COMMUNITY

	Number on List	Number of Post Cards Returned	% of Post Cards Returned	Questions on Post Cards*	% of Interest Shown	Number Interested in Preparation Program	% of Interest Shown	Number of Data Forms Returned	% of Data Forms Returned
AAUW-College Club	303	108	35.6	49	16.1	29	9.6	58	19.1
Ffld. Med.	100	23	23.0	10	10.0	5	5.0	14	14.0
G.B.P.A.	89	29	32.6	14	15.7	13	14.6	12	13.5
Smith	253	82	32.4	22	8.7	21	8.3	36	14.2
S.A.M.	271	92	33.9	31	11.4	24	8.9	28	10.3
Yale	200	48	24.0	22	11.0	10	5.0	33	16.5
Misc.	14	8	57.1	7	50.0	6	42.9	9	64.3
Phi Beta Kappa	215	79	36.7	28	13.0	19	8.78	38	17.7
Totals	1445	469	32.45	183	12.66	127	8.78	228	15.77

Note: Managers of research groups of local industries were contacted by letter and, at their request, a total of 51 Personal Data Forms were mailed of which forty-nine were returned indicating great interest in the possibilities of part-time teaching.

*Interest shown in part-time teaching.

spondents who indicated interest in part-time teaching.

The incidence of part-time teachers for the Arts College tends to be somewhat higher than for any of the others. This may suggest that community recruiting will be most productive if teachers for the Arts College are sought.

Table 2 also presents the age and sex data on our respondents.

TABLE 2

AGE, SEX, AND INTEREST IN PART-TIME COLLEGE TEACHING

College	Total	Age				Sex	
		25-29	30-39	40-49	50+	Male	Female
Arts and Science	130	20	42	36	32	56	74
Junior College	12	1	9	2	0	1	11
Education	17	2	7	6	2	4	13
Engineering	44	6	28	8	2	44	0
Business Administration	55	6	24	14	11	46	9
Nursing	2	1	0	0	1	0	2
More than one college	17	2	5	3	7	13	4
Total	277	38	115	69	55	164	113
Per Cent	100.0	13.7	41.5	24.9	19.8	59.2	40.8

The sample of respondents was largely composed of fairly young people. Approximately eighty per cent of all our respondents were under the age of fifty and the majority (fifty-five per cent) was under the age of forty. The preponderence of males in business administration and engineering and the preponderence of females in the Junior College and Education College areas is to be expected.

Table 3 presents the highest earned degree found in this sample.

The sampling, of course, was so constructed that the respondents would inevitably show a high percentage of degree-holding people. In addition, the table reveals that, of the 228 respondents, 121 hold advanced degrees.

TABLE 3

HIGHEST DEGREE HELD
(N = 228)

College	Ph.D.	M.D.	M.A. or M.S.	B.A. or B.S.	No Degree	LL.B.
Arts and Science	14	15	42	58	0	1
Junior College	0	0	5	5	2	0
Education	1	0	9	7	0	0
Engineering	3	0	11	27	3	
Business Administration	1	0	13	25	3	13
Nursing	0	0	1	1	0	0
More than one college	2	1	3	7	0	4

Table 4 is perhaps even more relevant to the question of qualifications. This table presents the teaching and professional experience of the respondents. It reveals that a sizable number of the respondents have either professional or teaching experience, or both. Of the total sample, sixty-five have had college teaching experience and fifty-six are teaching at present.

Table 5 presents further information regarding the professional qualifications of our respondents. Professional certification is viewed as evidence of professional competence. Taking this point of view, the table reveals that many respondents have, in fact, attained a reasonable level of professional competence. Of the total group forty-four hold teaching certificates.

The final test of the quality of the respondents is presented in Table 6. Listed in this table are the number of respondents in which deans of the respective colleges expressed interest. In a very real sense this is a critical test of the qualifications of the respondents and on this test they fare very well indeed. Roughly three out of every five of the respondents looked good enough to the deans (of colleges in which they would be qualified to teach) to be interviewed should an opening occur. The lowest percentage of interest was fifty per cent. In other cases the percentages

TABLE 4

EXPERIENCE: TEACHING AND PROFESSIONAL

College	Years of Professional Experience			Years of Teaching Experience			Teaching		
	1-3	4-10	10	1-3	4-10	10	College	Other	Now
Arts and Science	30	41	37	42	25	24	36	54	28
Business Administration	3	22	29	11	6	3	5	17	4
Engineering	5	13	26	11	12	1	16	13	6
Education	7	1	1	4	4	9	3	12	11
More than one college	2	3	10	5	2	1	2	7	1
Junior College	1	5	2	2	4	3	2	8	6
Nursing	2	0	0	1	0	1	1	1	0

TABLE 5

CERTIFICATES HELD

College	Law	Medicine	Teaching	Other
Arts and Science	1	11	26	10
Junior College	0	0	4	1
Education	0	0	11	1
Engineering	0	0	0	10
Business Administration	9	0	0	7
Nursing	0	0	0	2
More than one college	4	0	3	4

run as high as eighty-four per cent, for the Junior College, and seventy-six per cent, for the College of Engineering.

These percentages indicate that the part-timers finally discovered were of good quality. That these people were not otherwise known as potential teachers suggests that a community survey, if systematically and carefully made, will produce a good yield. It is not to be concluded, however, that this particular survey is the only or best way to search for

TABLE 6

APPLICANTS DEEMED BY DEANS AS WORTHY OF AN INTERVIEW

College	Number Sent to Dean	Number Deemed "Worthy"	Per Cent
Arts and Science	140	70	50.0
Business Administration	56	31	55.4
Engineering	46	35	76.1
Education	20	13	65.0
Junior College	13	11	84.6
Nursing	2	0	00.0
Total	277	160	57.8

qualified part-time teachers. Further explorations will doubtless improve on this one. The next section indicates a different approach.

Industrial Research Personnel as Potential Part-Time Faculty

Surveys have shown that the great majority of academically trained specialists employed in non-academic institutions are found in industrial research and development laboratories.[1] The concentration of this kind of personnel in these rapidly growing segments of American industry is also increasing at an accelerated rate. There are currently some twenty-three per cent of recent Ph.D. mathematicians in non-academic posts, and the trend suggests that soon more than thirty per cent will be in industrial and government work.[2] Of the recent chemistry Ph.D.'s, some three-fourths are seeking industrial careers; of the physics graduates, about three-fifths are turning to industrial employment.[3] Industrial research and development laboratories are therefore fertile sources of potential teaching talent.

---

1. D. C. Dearborn, et al., Spending for Industrial Research, 1951-52, Graduate School of Business Administration, Harvard University, 1953, p. 72.

2. M. Rees, "Mathematicians in the Market Place," The American Mathematical Monthly, 65:332-343, May, 1958.

3. Ibid.

However, certain questions arise. Since American business and industry are organized for profit making, would it be to the general (and to the specific) advantage of the business firm to release certain of its personnel from their regular duties to engage in part-time teaching? And further, if the firm is willing to release the employee, does the individual himself feel that it would be to his personal and professional advantage to engage in part-time teaching?

In the attempt to ascertain whether professional employees of a research laboratory are actually qualified and interested in part-time college teaching, four basic questions were formulated. These questions were:

(1) Are industrial research personnel qualified by training and experience for college teaching?

(2) Are industrial research personnel actively interested in part-time teaching?

(3) Is there an essential conflict of interest between industrial research and college teaching, so far as the individual researcher is concerned?

(4) Will part-time teaching actually help the full-time researcher in much the same way as part-time research helps the full-time teacher?

With these basic questions in mind, a brief questionnaire was devised and distributed to 200 employees of a major industrial research laboratory.

Qualifications of Research Personnel

Are industrial research personnel qualified by training and experience for college teaching? Evidence relevant to this question involves three kinds of qualifications: (1) academic degrees held, (2) work experience, and (3) teaching experience.

In this sample, the physical scientists more often hold the Ph.D. degree than members of the other academic fields represented. None of the other differences is statistically significant. Since this sample included at the outset only M.A. and Ph.D. personnel, and since many universities consider the M.A. the minimum academic requirement and the Ph.D. the desirable academic attainment, we may conclude that this sample of research personnel is, to this extent, qualified for college teaching.

The work and teaching experience data reveal that the members of the sample are relatively young. Almost the entire sample has been working less than ten years and teaching less than five years. Of the Master's degree holders, sixteen per cent have held full-time faculty appointments, and thirty-seven per cent have held full-time or part-time (or both) college teaching posts. The returns from the Ph.D.'s show that thirty per cent have held full-time teaching assignments, and forty-five per cent have held part-time or full-time (or both) teaching assignments. More than ten per cent of each group are presently teaching either in connection with their work assignment or in some academic program.

Interest in Part-Time College Teaching

To many a college administrator the desire to teach is the necessary condition for teaching. Does the prospective faculty member indicate a readiness or willingness to learn to teach? Will he grow into the task?

First, we asked a direct question concerning interest in teaching; second, we asked a direct question concerning willingness to learn to teach. The replies given to these questions constitute quantitative data. Third, we present as qualitative evidence the comments freely given by individuals concerning the other advantages part-time teaching might bring to their own work.

The replies show an overwhelming interest in part-time teaching. Of the 151 research personnel replying, 128 replied "Yes" to the question: "Would you be interested in part-time teaching on released time?" This reply is significantly different from chance beyond the .001 level of confidence. The definition of released time intended here is that the industrial concern will release the researcher from his full-time, eight-hour daily stint for an hour or two in order that the researcher might teach at a time convenient to a university.

It is likely that many of those replying "Yes" are familiar with the requirements and rewards of teaching. Over one-third have had teaching experience, as shown in the previous section. Of the 128 affirmative responses, thirty-four per cent have had one to five years teaching experience; twenty-five per cent have held full-time faculty appointments; and forty-six per cent have had either full-time or part-time (or both) teaching jobs. In addition, thirteen per cent are presently teaching either in connection with their work assignment or in some academic program.

Willingness to learn to teach is abundantly present in this sample of research personnel. Of the 128 indicating an interest in teaching, sixty-five per cent replied that they would be interested in a preparation-for-teaching seminar. This result is significant beyond chance at the .02 level of confidence.

Conflict of Interest

Is there an essential conflict of interest between industrial research and college teaching as far as the individual researcher is concerned? In attempting to answer this question, we are not looking at it from the point of view of those who frame company policy on such matters. We are attempting first to get the research workers' viewpoint. We asked a direct question concerning disadvantages to the individual's work of part-time teaching.

The most frequently marked disadvantage was that part-time teaching interferes with normal work assignment. This response points to a need for further examination before a part-time teaching policy could become operative. Some speculation may be appropriate here.

Those projects which require close deadlines and work quotas would obviously be adversely affected by a released time policy. Perhaps research work which is not so tightly locked in time would positively benefit. In answer to the question, "What would be the best time arrangement for you and your work?," well over one-half indicate a timing arrangement whose net effect would be to integrate the work experience with the teaching requirement. This arrangement might be one solution to the problem of interference with normal work assignment.

TABLE 7
RELEASED TIME FOR PART-TIME TEACHING
(N = 151)

Released for a little time each day	20
Released for a certain portion each week	60
Released for full academic quarter or semester . .	31
Released for a full academic year	17
Released for full summers only	4
Released for in-between projects	1
No response	18

Another possible solution to the conflict of interest problem may be more basic than that of mere clock hours. Will part-time teaching actually help the full-time researcher in much the same way as part-time research helps the full-time college teacher?

This question was stimulated by a Carnegie Foundation report.[4] This report examined the value of part-time research to the full-time teacher, and although not demonstrated by scientific evidence, the conclusion is definitely positive. The report forcefully brings home the point that there is a salutary effect on the teaching performance of college faculty members when the individual undertakes creative research in the field he is teaching.

To strike a proper balance between research and teaching is, of course, difficult. Professors doing research in universities often express the desire to be shed of students, in order to devote themselves fully and completely to research. Yet, as may be seen in the testimony to follow, full-time researchers have a yearning for students, for doing a modicum of teaching. Part-time teaching, many feel, would strengthen research abilities.

A Ph.D. physicist with three years of work experience and three years of college teaching:

> In recently preparing a lecture covering a paper on a certain theory in physics, I was unable to understand a certain point sufficiently well to explain it to others. I found that this was actually due to a shortcoming in the theory. I have now refined this point and plan to publish a paper on it.

An applied mathematician with eight years of work experience and one year of college teaching:

> At least two technical reports originated with ideas arising during teaching or preparation for it: these will lead to a patent, and a published paper.

An industrial engineer with six years of work experience and three years of part-time college teaching experience:

> Academic exposure helps formulate and crystallize research problems. This, plus enrichment of problem-solving techniques, shortens problem-solving time.

---

4. H. Lowry and W. Taeusch, Research—Creative Activity and Teaching, A Report on a Five-Year Experiment To Improve Undergraduate Teaching, Bulletin Thirty-Three, New York, The Carnegie Foundation for the Advancement of Teaching, 1953.

The sample for this study was taken from only one industrial research laboratory. For any far-reaching conclusions to be drawn, it would be necessary to survey other laboratories in the electronics industry as well as laboratories of other industries. On the basis of the results reported, it can be stated that industrial research personnel with advanced degrees and some work experience in their subject fields are interested and apparently well motivated for part-time college teaching. Although there may be some interference with normal work assignments, part-time teaching and industrial research assignments may have much in common.

The Viewpoint of Industrial Research Laboratories

Are the managements of industrial laboratories interested in releasing certain of their employees for part-time teaching? To answer this question, a sample of American industrial research laboratories was surveyed. This survey was undertaken with the following questions in mind:

—Are there company policies in effect which release employees for part-time teaching assignments?

—What are the advantages and disadvantages of part-time teaching so far as the laboratory management is concerned?

—What are the problems that must be resolved before industrial research personnel can be released for part-time college teaching on a national scale?

The signal outcome of the survey is a demonstration of the fact that among research laboratory management there is no explicit policy, uniformly administered. However, since most of the respondents represented small companies, there is probably not a great need for policy statements, especially since forty per cent of the sample do release employees for some part-time teaching on an individual basis. These are, as a rule, small urban laboratories.

The desirability of this practice is attested to by one-third of the companies which reported that the practice resulted in a major advantage to the company. Over half reported small or moderate advantages. In balance, one-third of the companies reported a major disadvantage and this drawback was, unanimously, that released time programs interfered with the normal work assignments of the laboratory employees.

Summary and Conclusions: Status and Availability of Part-Time Teaching Personnel

Among urban universities, the practice of employing part-time teachers is widespread. Seventy per cent of the large universities and ninety per cent of the small universities employ some part-time faculty members. However, there is also wide variability among both large and small universities in the ways in which part-time faculty members are used. In general, part-time faculty members appear to be selected as "second best" (at least insofar as academic degree is concerned). This selection, because of inadequate recruitment policies, would seem to be a matter of choice, not necessity. It should also be noted that large universities use part-time personnel more extensively and more professionally than small universities.

It seems evident from the data that a selective dragnet can uncover potential part-time teachers particularly in the liberal arts area. By area, experience, and professional competence, those interested in part-time teaching tend, also, to be qualified for part-time teaching. Deans responsible for hiring part-time people expressed interest in the high quality of the part-time people turned up from the community resources. It would seem that, for the college interested in securing part-time teaching personnel, a large pool of talent awaits in the community.

Among the research personnel sampled, interest in teaching ran high and was coupled with high qualifications. Research administrators, though agreeing in principle with the value of part-time teaching and closer cooperation with universities, seemed to expect the university to take the initiative.

The research administrator may not "find" a solution to the problem of work interference until and unless he has evidence of real effort on the part of the university. He seems to suspect the university administrator of dragging his heels. The university wants teachers, but will not pay professional salaries—nor does the university suggest offering its professors as consultants to industry on a comparable released time basis, for instance. The research administrator's attitude is that the university must be willing to encourage participation.

What then, of the university administrator? The university administrator sees the part-time teacher as a specialist or as a stop-gap. He

has not clearly decided to view the part-time teacher as a professional person and, hence, to set his standards high.

The university administrator sees more disadvantages than advantages in the use of the part-time person. For one thing, the part-time teacher is unavailable to students. It is interesting that this complaint is voiced twice as often by the small university administrator as by the large university administrator—particularly since the large universities tend to use the part-time teacher to advise students, whereas the small universities do not! The unavailability may reside more in the disinclination of the small university administrator than in the disability of the part-time teacher. Furthermore, the small university especially (though to some extent the large university as well) sees the part-time teacher as lacking in institutional orientation and as not being well-informed about the university—both of which would seem to be responsibilities of the university. Similarly, the unavailability of the part-time teacher to the general college community is cited. Yet, the part-time teacher is rarely invited to faculty meetings and is unrepresented on faculty groups and committees.

In fact, the privileges that are accorded the part-time faculty member generally turn out to be relatively trivial ones. The use of the university library, for instance, would be a pale inducement to any professional person who would probably have access to the library through other channels anyway. It is perhaps also significant that some proportion of the universities deny the part-time professor the everyday privilege of free books from publishers . . . and even do not provide parking privileges.

A more serious consideration may be the attitude of the university administrator toward the role of the part-time teacher. Professional personnel, highly trained in their field and respected among their colleagues, do not readily fit into a sub-professional role. Perhaps, however, these criticisms stem from the stereotype of the part-time teacher as a less skilled "easy grader"—a stereotype which proved under inspection (of the Los Angeles University study) to be largely false.

The conclusions seem evident. The need for professionally trained faculty will inevitably increase. Qualified part-time personnel are available—and interested. Clearly, the burden of action is upon the university.

The decision cannot be made for the university, but the alternatives seem clear: either continued perpetuation of the stereotypes of the part-time teacher as a second-best academic citizen, or a new approach, planned professionally, stressing professionalism.

AN EXPERIMENTAL PROGRAM IN RECRUITING AND PREPARING PART-TIME TEACHERS

Recruiting the Faculty Interns

Professional treatment of the new part-timer can be planned by experienced full-time faculty members. While they may not agree on all educational issues, they can come to working agreements about the kind of person desirable as a professional colleague. They want, simply enough, someone like themselves who can carry a fair part of the load. They want someone who is stimulating and congenial, independent and interested. They want someone with the freedom and responsibility of the professional person.

To find and prepare a person of this sort requires work on the part of the full-time faculty. A record follows of the experiences of one faculty engaged in this endeavor.

The experimental group of Faculty Interns was recruited in August and September, 1957. On August 18 a local newspaper story noted that twenty volunteers were sought by the University of Bridgeport to participate in a Ford Foundation research project on the use of part-time college teachers. This story was reprinted in another newspaper a week later. Also, all full-time and part-time faculty and members of the Board of Associates and of the Board of Trustees of the University of Bridgeport were sent a letter inviting them to submit names of persons they thought qualified for the experimental program. From these efforts, 162 applications were received.[1]

Although only fourteen names were submitted by the University faculty, six of these were actually selected for participation. One of the

---

1. The community survey conducted in February, 1958, and discussed on pp. 14ff. revealed additional techniques for recruiting part-time teachers. However, a program which is announced as being "experimental" appears to have unusual drawing power. A number of Interns stated directly that they would not have been interested in part-time teaching had it not been for the experimental program.

most productive sources of potential part-time faculty is the group of people already in some way associated with a university. Eleven of the nineteen Interns were found in this way and some 55 per cent of the total names submitted came from these sources.

To qualify for initial consideration for the experimental study, each person must have had neither formal preparation for teaching nor teaching experience. He was required, however, to satisfy one or more of the following conditions:

1. have obtained a master's or other advanced degree,
2. have been licensed or certified by a recognized authority to practice in his chosen field,
3. have had enough experience in a particular field to insure competence in presenting its subject matter at the college level.

Of course, it was expected that the person would have a pleasing personality and be capable of working with college students.

Three separate steps were involved in the selection of each Intern: (1) screening of applications, (2) interviewing candidates, and (3) voting by Faculty Advisory Council for acceptance of candidates.

The screening of each of the 162 applicants eliminated all those who failed to meet the minimum standards. As a result of this initial screening, the total number of candidates was reduced to 61 who were invited for individual interviews.

Each candidate was interviewed by a team selected from among the full-time faculty of the University. Each team was composed of one member from the candidate's own subject matter area and two members from other departments of the University. A Reaction Form was used requiring each interviewer to rate the candidate on six broad dimensions: personality traits, physical qualities, general professional skills, special professional knowledge, motivation and attitudes, and willingness to undertake the experimental program. In addition, space was provided for specific comments on any of these areas and for any general comments the interviewer might wish to make. Finally, the interviewer was requested to give a specific recommendation regarding the candidate's suitability.

On the final composite list, submitted to the Faculty Advisory Council, the Intern was classified by college and by specific course which he would be expected to teach. Included after the candidate's name was a rec-

ommendation given by each member of the interviewing team, as well as any remarks the interviewers cared to make. Candidates for each college were presented to the Faculty Advisory Council for selection by the Dean of the college who described briefly the candidates' qualifications.

A control group was selected from among the best of the remaining applicants. Although not directly matched with the experimental group, they resembled them closely in academic background, professional competence, and the recommendations of the faculty interviewers.

Closely related to the problem of location and selection of the new part-time Faculty Interns is the problem of inducement. In the third week of the seminar the Interns were asked to write a brief statement answering this question: "As much as you understand it yourself, what were the inducements for you to undergo this program?" Sample responses were as follows:

> I entered the preparation program because I would like to teach. However, I would have been reluctant to teach without the benefit of some training or orientation program. The prospect of four months of supervised preparation was the chief inducement for my participation.
>
> . . . I believe that in order to teach one has to know his subject a little better than if he were not teaching and that it would be of benefit to me personally to study during the winter months in preparation for teaching this course.
>
> For some time I had wanted to avail myself of an opportunity to do some part-time teaching at the college level. This program seemed to present such an opportunity, with the extra attraction, in view of my lack of teaching experience, of a training period during which the basic knowledge, both theoretical and practical (especially the latter), about teaching could be obtained and, hopefully, assimilated.
>
> I have always felt a desire to teach, but I also feared that I would not be successful if I were just flung into the teaching profession without some understanding of what a teacher's job really accomplishes. I felt that this program would bridge the technical knowledge I felt I had and the teaching knowledge I lacked.

From these statements, we can see that the major inducement was professional enhancement through a program of preparation. The recognition of the recruitment value of a preparation program was the first discovery in this study.

The Preparation Program

One practical way for an institution to implement "quality control" is through a faculty workshop. Rather than have a faculty workshop con-

sider the problems of teaching at large, the plan developed here required that fifteen to twenty full-time faculty members (senior members generally, including department chairmen) be invited by the president of the university to plan a program suitable for the preparation of the new part-time faculty members. The same conceptual framework was applied as in other parts of this study. We wanted a cross-section of the university departments, so that there might be cross-stimulation of different points of view.

It was expected that these faculty members would approach the problems of teaching and the preparation for teaching in a professional manner. For instance they must decide wherein the faculty contained sufficient resources within its own group and wherein it must seek specialized consultant help from outside the group. Thus, for example, a psychologist, an educational philosopher, an experienced dean of an evening college, and a scholar of the problems of teaching in college were brought into the workshop. While there were differences among these various consultants on particular points, the similarity of approach—stressing conceptual and empirical inquiry into basic issues—was impressive, and it stimulated discussion at a high level within the workshop.

Nevertheless, the faculty members in the workshop had final say about what would be included in the preparation program, how it would be organized, and how it would be evaluated. An important by-product of the faculty workshop, gained indirectly, was the renewed interest and protracted thought these faculty members gave to their own problems of teaching.

From a financial point of view the faculty workshop had the twin advantages of being relatively low in cost and highly specific in result. The costs were borne by the university in the form of reduced teaching loads plus a reduction in committee assignments. The faculty members dropped one course and were taken off one major committee assignment to participate in the workshop and in other aspects of the preparation program for the new faculty members.

The plan of the workshop was a simple one. Faculty members met in two hour sessions daily for five weeks during one part of a summer session. Sometimes the group met in plenary sessions to consider general issues. Sometimes groups of two or three would meet together to consider particular issues and would later report back to the plenary sessions. Sometimes these smaller group meetings concerned issues relevant to

only a particular subject matter area (e.g., engineering, business), and sometimes the smaller groups considered problems relevant to the whole program. For example, one of the smaller groups planned the instruments to be used in the evaluation of the preparation program; another group examined the problem of testing and measurement of student achievement.

The achievement of the workshop was twofold. First, a model program was created (see Appendix, pp. 56-58) during the summer and put into practice the following semester. Secondly, interviews with potential part-timers were held and those needed for the experiment were selected to participate in the preparation program.

The nineteen Interns who were selected were not paid for the semester during which they participated in the preparation seminar. They were, however, paid at the going rate for part-time teachers when they took over a class the following semester. During the preparation program they gave their time and energy freely and enthusiastically.

Aims of the Seminar

After the third meeting of the seminar, the Interns were asked to respond to this question: "What do you expect to achieve in the preparation program, and how do you think this might be done?" Apparently this question was an appropriate one at the time because many of the Interns wrote a considered reply.

Some expected both theoretical and practical helps in teaching. However, the expectation for help with teaching techniques was predominant in their replies, outweighing the concern for a basic philosophical point of view over three to one. Some quotations:

> I hope to learn something about the accepted teaching techniques, the so-called "tricks of the trade." I would think that the best way to prepare myself would be through discussions with those who have already proven their qualifications and by observations of classroom procedure.
>
> Specific knowledge of rules, requirements and standards at UB. This can be achieved by classroom observation especially in the class which I shall teach. It might also be of some advantage to go over examination papers with the instructor.
>
> . . . I expect to learn something of what is expected of me as a teacher; that is, to develop teaching techniques (if there are such), preparation both of class work and examinations, and my relationship with my students. I think that this may be done by my witnessing several classes in the field in which I am to teach, several meetings with

the member of the faculty who teaches my course full-time and by lectures and by discussions by members of the faculty on subjects which I have just mentioned.

. . . From this preparation program I hope to learn something in connection with the following items—(1) how to organize a course, (2) how to give an examination, (3) how to arouse interest of the student, and (4) classroom techniques.

Three things: (1) learn something about the philosophy of teaching so that I may better be able to cope with student problems and queries as they arise; (2) learn something of the mechanics of teaching so that I may better prepare and present a subject; (3) learn something of the mechanics required in working for this institution. . . .

. . . I look forward to learning about the proper preparation of examination papers, marking, and the mechanics of organizing and presenting a course.

. . . I would expect that much of the time would be spent in expounding the techniques of teaching. I would be interested in methods of putting across ideas, in methods of measuring student response, as well as in the practical details of managing a class.

It would seem evident from the selections above that teaching techniques and classroom specifics were the foremost considerations of the Interns at the beginning of the seminar. Three or four of the Interns indicated a passing interest in a basic point of view; the others wanted help with their subject matter preparation. (It was not assumed that the Intern would receive subject matter help from the seminar, but rather from the faculty sponsor assigned to him.)

In addition to revealing the view of college teaching as primarily a matter of teaching techniques, these statements reveal the Interns' lack of appreciation of the broader purposes of college education. The Intern saw his role as that of a pale imitation of the master teacher. He sought to know how he ought to teach if he followed "accepted" practices—as if the character and personality of the Intern and his past experience and the character and personalities of the students and their past experiences had nothing (or very little) to do with the task at hand. Further, only three persons were concerned with aims, with "why" something should be taught. There was scant consideration of the purposes or aims of college education. In short, the Interns' expectations were quite different from the general ideas animating this study.

Should the seminar program stress tips on teaching, or basic ideas on education? To have followed the wishes of the Interns in their expectations for the preparation program would have defeated the purpose of the experiment. The preparation program was designed to consider both a

professional person and the professional requirements of teaching. The issue is reminiscent of the argument over the Horace Mann type of teacher institutes of one hundred years ago. These institutes taught teaching techniques in a short time to new teachers of limited theoretical knowledge and skill. A program designed in line with the wishes of the Interns would have been of the non-professional type, stressing routine clerical procedures, such as grading, controlling the physical environment, and giving an assignment. Such matters are easily learned by sub-professional assistants, but they are hardly the basic kind of learning required of a teacher who conceives of his task broadly and comprehensively. Therefore, in this study the issue was resolved in favor of a concern with theories of philosophy, psychology, and sociology.

The task of preparing the professional teacher was regarded as one which would (1) respect the integrity of each new Faculty Intern, (2) place some demands of originality upon the Intern as he sought to fashion his fundamental knowledge to fit the task at hand, (3) require substantial responsibility of the Intern in accepting the consequences of his acts, and (4) expect the kind of interpersonal relationships that promote fundamental respect for independent critical thinking which is conducive to personal growth. These four requirements suggest an awareness by the college teacher of a consistent point of view or an explicit theoretical framework.

Education as a field of study has, at the moment, no high level theory comparable to that of thermodynamics in the physical sciences. The absence of a single, dominating theory creates a condition where many less powerful theories are constructed and utilized. These theories may be classified into three types: scientific, philosophic, and pedagogic.

Scientific theories, such as Clark Hull's theory of learning, seek to establish relations between logical-mathematical propositions and observations of behavior under discriminating conditions. Philosophic theories, such as theories of knowledge or value, seek to establish relations between propositions about personal beliefs, ideas, and key facts about the world. Pedagogic theories, such as theories of interest and effort, or rationales about curricular issues, seek to establish relations between propositions about conditions of teaching and what one ought to do in facing these conditions.

The theory presented here is pedagogic. It consists of a series of six propositions, set in terms somewhat like moral principles prescriptive of behavior. These propositions are stated as if they were in an "ought" form: "You ought to do this." Statements in this form are frequently objected to because of their authoritativeness. Yet, it remains the case that something must be asserted before something else can be tested. These six propositions set the conditions for teaching in the seminar.

The first condition was that of heterogeneity. All colleges within the university were to be represented if possible. Men and women, young and old, those with advanced scholarly work in their fields and those with years of experience outside a scholarly setting, were to make up the experimental group. The humanities, the social sciences, and the natural sciences were to be represented among the Faculty Interns. This heterogeneity was in fact achieved in the experiment.

The second condition underlying the study is related to the first. Interaction among the Interns and interplay of various points of view was expected and was deemed desirable. There would be no attempt to legislate or indoctrinate a point of view toward teaching. Disagreement, to the extent of putting a person's point of view in jeopardy, was encouraged as a way of inducing perplexity.

Perplexity, then, is the third condition. Perplexity is here intended to mean cognitive perplexity, or the recognition of needing to know something not now known as well as the recognition of some uncertainty about things presumed "known."

In addition to the perplexity induced by differences within the group of Interns, the preparation program was deliberately planned to present competing, alternative points of view. This fourth condition was implemented by presenting to the Interns a wide variety of model teachers. The teachers were to be "model" teachers in that they were asked to present a capsule of instruction which would contain educational philosophy, educational method, and educational technique. In addition to the model teachers brought into the seminar, the preparation program itself was planned with a view toward presenting exemplary learning situations.

The fifth condition offers a framework for the first four. Theories from philosophy, psychology, and sociology were presented as relevant

to the need for a comprehensive framework of thought. The need for such a framework was generated during the preparation program. It was found that the Interns needed some way to make sense of the varied and conflicting experiences they were having. The heterogeneity of the group, the sometimes confusing interactions, and the early adoption of the new role of teacher engendered perplexity. The theories were then offered to the Interns, not as something they could just passively understand, but as something to use in preparing for teaching. The theories could be used to supply direction (since they are systematic), to induce the search for relevant evidence (since they are detailed and precise), and to offer grounds for making decisions concerning new problems arising with teaching and the selection of subject matter for students.

The intern was expected to experience directly the value of using his intelligence to solve an immediate and pressing problem: how to think about teaching. It was felt that college learning will more probably tax the intelligence of students if college teachers are convinced from their own experience of the value of active inquiry into problems combining non-cognitive and cognitive aspects. Thus, the seminar required more than rote memorization of rules and exceptions, more than faithful imitation of an approved master teacher's personality, more than the spontaneous, sheer creation of the intuition of the "born" teacher. Furthermore, the seminar was expected to offer more than "tricks of the trade" in teaching techniques and more than a poor Richard's almanac of teaching methodology; it was expected to offer an opportunity for the intelligent application of theory to practice. The seminar required of the Interns disciplined intelligence seeking consistency and moral earnestness seeking growth. It required, in short, the characteristics of professional behavior.

The attempt in the seminar was to pose alternatives in attitudes toward teaching. Lack of consensus or agreement in the seminar itself was the operating condition. The heterogeneity of the various academic disciplines stimulated this heterogeneity of attitude. Most of the Interns thought that the difference of opinion was healthy and invigorating—an ever-present challenge to think carefully and for one's self. It would do little good for a prospective teacher of history to ape the specific attitudes of a prospective teacher of physics. The two disciplines might have a great deal in common, but such commonality would have to be reached

for—it does not appear on the surface. When one Intern said, "Science is an exact discipline, whereas social science is not," he was quickly challenged by other Interns. Or if the statement was lightly made that "A fact is a fact," the speaker was quite likely challenged by the observation that it is interpretations which make "facts" facts; there is nothing written on the face of a fact which labels it "Fact."

Alternative attitudes were presented and discussed in the seminar. The purpose of the seminar was to stimulate the Intern to think in a protracted and deliberate way about educational issues and attitudes. There was no attempt made to persuade all the Interns to one way of thinking. An open-ended approach, presenting defensible alternatives, with the decision being left up to each Intern on how to proceed once in the classroom—such was the bias of the seminar.

Agenda of the Seminar[2]

Before the first meeting of the seminar program, each newly appointed Intern was sent a letter of welcome by the study director. Included with this letter were a time schedule of the preparation program, University catalogues and maps, parking stickers, etc. In addition, the letter invited the Intern to attend the initial "ice breaking" meeting.

During the initial meeting, each Intern was introduced to his faculty sponsor. Also during this meeting, the Dean of the College of Arts and Science described the history of the University, and the President spoke briefly on the University's ideals and policies. Primarily, however, the purpose of this meeting was to provide a personal welcome to each Intern, and to make him feel at home.

The second meeting of the seminar program was devoted to testing of the Interns. At this time, initial scores on the major measuring instruments of the study were obtained.

Following these preliminaries, the seminar program got under way. On successive weeks, the previously determined major topics of the preparation program were presented. This program began with a general over-view of the teaching profession, including, for instance, the importance and nature of academic freedom. Guest lecturers discussed (and provoked discussion of) such topics as student expectations and attitudes

2. See Appendix, p. 56, for a complete agenda.

toward college teaching, "shared inquiry" as an approach to teaching, the application of psychological theory to teaching practice, the aims of teaching, theories of knowledge, theories of value, and the evaluation of teaching. Near the end of the program "model" teachers demonstrated and defended alternative approaches to teaching. One final meeting was devoted to reviewing and summarizing the seminar experience.

At the conclusion of the seminar program, the Interns were tested for a second time on the major measuring instruments used in the study. During the operation of the seminar a log of events was kept by the director of the study. A faculty member served as an observer-recorder. In the pages to follow, large excerpts from seminar sessions are presented. All names of persons involved have been changed.

Excerpts from the Chronological Log of Faculty Intern Seminar

October 30, 1957

Plan for session

We wanted the Interns to encounter directly some of the important differences among the evening college students and the different conceptions held by members of the faculty. These differences concerned expectations for the teacher (the teacher's role), conceptions of learning, reasons for going to college, justifications for a good teacher.

In the first session, as in those to follow, a number of the six key principles previously described can be seen operating.

The principle of heterogeneity was exemplified by selecting a panel of six persons reflecting a number of different characteristics—two young, full-time students who sometimes took courses in the evening (a girl and a boy), and two older adult students—one in business and one in engineering—and two faculty members with teaching duties who also worked in the Personnel Office—the male director of Student Personnel and the female director of dormitories. These six persons composed a panel dealing with the topic, "The Good College Teacher." The differences that emerged in their presentation and through their cross-questioning of each other, plus the searching questions provided by the Interns illustrated the principles of interaction. Since the panel members disagreed on a number of points, perplexity was induced in the Interns through the presentation of alternative points of view.

Finally, the panel was not set as a debate or as a discussion in which one person or one side would "win." It was designed to expose genuinely held convictions not easily subject to change. No attempt was made to achieve consensus.

This session, as do the ones to follow, illustrates the application of some of the principles of our theory to the practice of teaching. As the sessions progressed, the approach became more and more obvious to the Interns. The session lasted for two hours. A condensation and abstraction of the points made during the discussion are listed after the name of each person.

Louise—The good instructor makes his material interesting. He is interested in students as persons. He will listen to the criticisms of students, treat students as adults. A poor teacher is one who does not tell us what we should learn. He is one who is disorganized; the student is lost. Often he lectures on what we could have read in the textbook at home. A good teacher should cover some ground, not go in a circle, should be honest when he does not know an answer, and should know the names of students. While exams are necessary, students do not like to memorize details which they know they will forget. Students like exams to be on something general; something students can remember and can use. The chief function of a teacher is to clarify and to expand.

Vincent—A good teacher is well organized. He should, within the first one or two sessions, give an overview of the whole course. The teacher should realize that students are independent or else they would not be in college. Frequent testing is good. To have a course in which only two examinations are given is a threat to the student. A good teacher lectures in a way so as to co-ordinate his lectures with the readings in the text. The purpose of college education is to make you think logically.

Mr. A.—The adult student cannot tolerate fun-making on the part of the instructor. The adult student has a hunger for knowledge and wants the instructor to get down to brass tacks. Whatever is taught must be productive for the adult, and this means he may put it to some immediate use. Grades seem to make less difference to adults than to younger students. Personality is more important than grades to someone in industry who hires the products of college. Day and evening students being mixed in the same class is not good. Students must contribute at least 90 per cent of every course.

Mr. T.—A good teacher must be a leader. He must feel the pulse of a class and must talk students into profitable learning activities. A good teacher must be enthusiastic about what he is teaching. He must have a structure and must repeat principles and concepts as the pillars of the structure. Discrete facts do not mean anything until the student all of a sudden perceives the structure in which the facts fit.

Dr. W.—Faculty are advisors to students whether they want to be or not. Hence, it is important that faculty listen to students, help them in learning, make suggestions on how to take notes, how to read, how to study. Every instructor should become familiar with the tests we give our students here. We have reading tests, English usage tests, and Universal English Program, etc. Instructors must create for students an atmosphere for doing the best they can. If the instructor is not interested in the individual student, he is then failing to teach. We do not teach subjects; we teach students. The aims of teaching are not only to instruct in knowledge but to (1) help adjust the student to the world and to himself, (2) to teach democracy and citizenship, (3) to teach aesthetic appreciation, and (4) to teach vocational competence.

(Dr. F. was in general agreement with Dr. W.)

Comment

Louise, the young girl, was winning and personable. She expected the teachers to treat her as a person, as an adult. On the other hand she seemed to find teachers "poor" who did not let her "in on the secret"—when they did not tell her what to learn. Louise's approach to college learning seems to be that of many adolescents who are trying to answer for themselves the question "Who am I?" Her need is for identification and psychological support. Teachers who ask students to "memorize details" really seem to be treating college students like high school pupils rather than as adults. It is this lack of recognition of the persons seeking adult status that she finds the chief defect in college teachers. The mature adult, however, does not expect to be told what to learn (viz. Mr. A.); he is not as dependent upon the teacher as the young college student who needs adult models.

Although young Vincent has similar concern, he does not use nor depend on personality so much to win his case. He tries to present a logical, rather than psychological, approach. While he states that students are

"independent" he also states that teachers can threaten this independence through teaching procedures (two tests instead of frequent testing). To give an overview of the course, to co-ordinate lecturer and readings, to make you think logically are all more logical than psychological arguments for the good teacher.

Mr. A., an adult business student, expects to work hard on the subject matter and to keep personality development to a minimum—apparently because he knows how to use his personality successfully in industry where he works. What he seeks in college, then, is knowledge that he can put to immediate use.

Mr. T., an adult engineering student, has a different conception of knowledge. He is interested in concepts, ideas, and principles. For him, immediate use of information is much less important than the "structure" of knowledge. His good teacher must be effective as a person who can combine the psychological (an enthusiastic leader) and the logical (the instructor of ideas) in teaching.

Dr. W. wants teachers to deal with persons, not classes. His good teacher knows his students, both informally and formally (through standardized tests). He tries to adjust students to the world; but this adjustment is personal-social, not essentially conceptual. His "good teacher" fits the young undergraduates better than the adult learners. Dr. F. agreed with Dr. W., which for purposes of the seminar was a disappointment, since we expected Dr. F to take the point of view of the adult learner. It was brought out by Dr. Gowin that the adult learner may have difficulties if subject matter challenges his more or less set ways of thinking. The coercion of old habits may be the chief impediment to rapid learning in the adult. Mr. A. may be frustrated if subject matter is presented as concepts which do not have immediate usefulness. Mr. T. may have difficulty if the subject matter is presented as a string of facts without a conceptual framework.

In summary, it seems as if the teacher has an impossible task, for he cannot please everyone. It was our conviction that the teacher needs a conception of teaching that is defensible and that takes into account in some consistent way the various realities of the teaching situation. We thought that the seminar did lay the groundwork for seeking consistency in thought and attitude. Obviously, the chief task in their preparation for

teaching was to enable the Interns to make sense of the often-conflicting differences.

Evaluation of the evening

The fact that over half of the Interns continued their discussion for half an hour to an hour suggested considerable personal involvement in the issues raised in the evening's seminar. Four of these issues are:

A. Is it the teacher's responsibility to make material interesting, or would the student find it interesting if he put forth the effort to learn it? This is the distinction between interest and effort.

B. How far down the list of real motives of college students is the desire to learn subject matter? It was apparent to the Interns that adult evening students had a different desire to learn as their reason for being in college from day students.

C. The two day students wanted faculty to take a personal interest in them but they did not want to take responsibility for planning a course with the teacher. These students felt the courses must be ready-made without putting responsibility on the student, but should take the student into account. This brings up the issue of teacher-student planning.

D. Can the teacher give students intellectual discipline, or must students find it for themselves in an atmosphere where knowledge and learning are created co-operatively?

November 6, 1957

Professor Robbins, Guest Lecturer

Plan of session

This session with Dr. Robbins and the following session with Dr. Richter illustrate the frameworks of thought of these teachers as well as the theories and practices which are contained within the framework.

Dr. Robbins' framework of thought embraces two theories, one philosophical and the other psychological.

His philosophical theory involves a conception of man, knowledge, and value. Value (goals) and knowledge are created rather than discovered. His psychological theory is an interpretation of Freudian theory. He sees men as having tensions and energy which demand an outlet.

Within this framework emerges a theory, a generalized method of teaching (problem-solving) and a technique of teaching (use of essays to teach). Dr. Robbins was requested to organize his presentation so that theory, method and techniques of teaching would be emphasized. The fol-

lowing description of Robbins' use of theory, method, and techniques is illustrated in the log:

Theory: Man is an energetic goal-seeker creating values and knowledge.

Method: Problem-solving method through inquiry shared by teacher and student.

Technique: Using essays as a teaching device.

We can see in this next session how principle, method, and technique were blended. The technique involved having students write essays from their personal experience. The method involved the treatment of the essays in ways other than simple grading (A, B, or C), and the principle (shared inquiry) was used to suggest the method and to account for the technique of teaching.

Clarification and higher mental processes

The Faculty Interns were asked to write an essay on "The Good College Teacher." These essays were given to Dr. Robbins to read before he came to the class meeting. He analyzed these papers and wrote comments on a separate sheet. In class, he read a portion of a paper and then read his comments and asked for questions from the Interns about his comments. For example, he asked the person who wrote a description of a teacher of classics this question, "Does a teacher of classics have a head start over the rest of us simply by virtue of intrinsic value of what he is teaching?" Another question was asked of a person who felt that the teacher's job was primarily one of guidance. "Since you gave no definition of guidance, what can it mean?" Professor Robbins asked another Intern, "Are all good teachers all good, and bad teachers all bad?" Professor Robbins suggested to an Intern that he write a paragraph describing how the good and bad college teachers are alike instead of how they are different. And further, what are the implications for college teaching of the fact that college teachers have had different personal experiences? Does a man's experience shape his teaching?

Professor Robbins described his technique of teaching this course as follows: Any paper or lab report or other product of student work should be two papers—the first paper will be turned in, read by the instructor, and returned to the student with comments. The student will attempt, next, to rewrite the paper in line with the instructor's comments. Several assumptions are involved in this technique:

1. The questions the instructor raises about the student's paper are not rhetorical questions, but questions which genuinely puzzle the instructor. Professor Robbins calls this "shared inquiry."
2. Professor Robbins believes that teaching is best when teacher and student are brought into a man-to-man relation in the facing of a common problem.
3. The instructor's purpose is to clarify. This may be done in a variety of ways:
   a. reflect ideas, not merely facts
   b. ask students to clarify concepts
   c. note possible contradictions in ideas and concepts
   d. ask for definitions, illustrations, examples from students
   e. ask about the comprehensiveness of explanations given by students, i.e., are explanations adequate to the problem?
   f. look for false or misleading generalizations—for example, look for such key words as "all," "none," "never," statements implying cause or influence, correlation, proportion, name-calling, labeling statements; "if-then" statements, use of analogies, similes, and metaphors.
   g. ask students to write a summary

Professor Robbins believes that all of these seven notions require the utilization of higher mental processes.

Aims of education

Professor Robbins believes that each of us has tensions or needs, personal and attitudinal, which create energy. These energies have as their purpose the achievement of values. The aim of education, then, is the seeking of ways to use energy. People take pleasure in the seeking of goals. An instructor does not need to know, except in a general way, that his students are seeking goals; but the instructor can contribute most in furthering not the goals, but the seeking of the goals. Professor Robbins seems to believe that process is more important than product. He implies that logic and linguistic analysis are tools of the college teacher who is attempting to utilize higher mental processes.

He was asked what was the function of information. He replied, tautologically, that information informs. Informs what? Information to be valuable informs (a) attitudes, (b) interests, (c) beliefs, (d) purposes, (e) aspiration, and (f) thinking—relevant to judgments, decisions.

As a consequence of Professor Robbins' definition of the aims of teaching, we may derive a criterion for judging teaching. We ask, "How

much seeking (process) is involved?" Those methods of teaching which encourage more seeking are better than those methods which inhibit seeking. It does not matter what knowledge, i.e., subject matter, we are trying to impart. The Aeneid or Accounting—either may be used in good teaching. The teacher in either case must clarify to help the student to become a seeker. The student will then be able to continue learning well after the class is over.

November 13, 1957

Dr. Richter, Guest Lecturer

Dr. Richter has a framework of thought composed primarily of psychological theories coupled with the disciplined approach of the scholar chiefly concerned with subject matter.

As in the preceding session with Dr. Robbins, Dr. Richter was requested to illustrate the blending of theory, method, and techniques. The following outline results:

Theory: Gestalt Theory of Perception as an Approach To Learning.
Method: Formal lecture
Technique: Unannounced quiz

Some points made by Dr. Richter

Conditioning theory based on studies with rats is rejected. They are based on experiments which do not take into account the abstraction of symbols, i.e., language, which is the mark of humans. Nevertheless, since much teaching in the high schools is predicated on behavioristic principles, students coming to college are notoriously deficient in understanding the process of concept formation.

Gestalt-Theorie is a theory of perception. Duncker (On Problem Solving) and Wertheimer (On Productive Thinking) asked this basic question: how does a solution rise out of a problem? The answer they give is this: Perceptual re-organization.

Piaget has a workable theory of learning. This theory attacks John Stuart Mill's concept of mental images. Mill thought images emerged immediately from outside impressions. Universals for Mill were derived from a plurality of particulars. Piaget believes you cannot derive the concept "one" from objects. Concepts apparently come from subjects, for

Piaget's images are reproductions of actions. Apparently, operations produce images. (This might be the basis for the validity of operational definitions. Peirce reverses Piaget. Peirce writes that it is the function of actions or operations to make ideas clear. It may be that Piaget is climbing up one side of the ladder of abstraction, i.e., from operations to images; and Peirce is coming down the ladder, i.e., from ideas to actions.)

Piaget's theory is something like Tilton's theory of cue reduction which states that cues reduce prior excessive operations.

Heidbredder prefers to write about the "capta" of experience and not the "data." It is more important what we take from experience ("capta"—the taken) than what we find ready-made ("data"—the given).

Implications for adult learning:

A. Words have a history: in explanation and teaching, it is helpful to go back to earlier operations to help to make words concrete. For example, the word "theory" means spectacle, means something to look at, means a fresh outlook.

B. In any teaching, one can emphasize historical situations. The rights of man, the meaning of freedom, etc., can be taught by re-establishing the original contribution out of which these refined abstractions emerged.

C. A new behavior, i.e., learning, never emerges abruptly. There is always an earlier series of operations and actions (events). It is a purpose of teaching, then, to re-establish disrupted continuity. There is a continuity in all things.

November 20, 1957

The Faculty Interns were given a five-minute unannounced quiz. This quiz was based upon lecture material given the week before by Dr. Richter. The quiz was prepared by her also. The technique of using unannounced quizzes was discussed. The Interns wrote their comments as to the value of this teaching technique. A couple of assumptions emerged.

A. This technique works upon the principle of motivation by fear. Students keep up in a course because they are afraid that if they do not, they will not be able to pass in an unannounced quiz. This approach to teaching seems to imply that learning accumulates in even-sized bits of knowledge. Upon this assumption, every student who keeps up bit by bit, week by week, is, or should be, a good student. The theory of learning involved here is a behavioristic-atomistic one.

B. The Gestalt-Theorie makes a different assumption: learning is primarily re-organization. Learning may not necessarily occur in atomistic bits. Rather, learning is based upon seeing new re-

> lations. Unless such a quiz be given to require re-organization, it would not promote learning. Simple recall of information would not be justification for such a quiz.

Some of the Interns perceived that an unannounced quiz was really not so much a quiz of how well the students are doing, but rather an indication of the effectiveness of the teacher. Upon this assumption the lecture method of teaching would seem to be very inefficient.

Summary evaluative comments (Professors Robbins and Richter)

The Interns were favorably impressed by Dr. Robbins. They experienced directly the feeling of sharing ideas and problems with a gifted teacher. Communication was easily established and inquiry furthered. They recognized their shortcomings in a way that stimulated them to think more deeply. The support available from a well-grounded framework of thought was understood. In some cases, the beginnings made in their essays on good teaching were developed as the experiment progressed.

Dr. Richter impressed the Interns also, but in a different way. Here was a mind stocked with great learning. They recognized her erudition. Yet, despite the fact that the topic was "learning," very little (if any) learning took place. Most surprising was the fact that the Interns did not perceive the relevance of "learning theory" to teaching. They all failed the unannounced quiz.

Plan of sessions

Four model teachers taught in the next two sessions, each having one hour. Their assignment was to give a capsule of instruction (they chose their own topics), and then to discuss and defend the ideas, methods, and techniques of teaching.

A word about the sense in which these teachers were "models." While they were all excellent teachers, they were not presented as master teachers for the Interns to imitate. Rather they were proposed as models of basic ideas of teaching. They were chosen as persons who would ably present their convictions about the best way to teach, although they all recognized that their way was not the only way or the best way to teach.

Professors Robbins and Richter presented content which was directly pedagogical. These four presented varied content with the focus on the

form, not content. The Interns, however, were not informed of this fact beforehand.

The pedagogical form may be represented in the sequence used as follows:

1. Dr. Little: Didactic, and persuasive
2. Dr. Berg: Didactic, and non-persuasive
3. Dr. Duroff: Non-didactic, and non-persuasive
4. Dr. Brew: Non-didactic, and persuasive

Some of the principles which led to this arrangement have been discussed before. It is clear that the juxtaposition of the four model teachers illustrates the principle of competing and alternative points of view toward good teaching. The Interns were not given an abstract verbal statement of the differing conceptions of teaching; they encountered them directly, as students in a classroom. Questions asked of the model teachers revealed some insight as well as cognitive perplexity concerning the "why" of teaching. Moreover, interaction between teachers and Interns, between Interns and Interns, continues to work as a process by which ideas and attitudes are expressed and clarified.

Outside of specific situations, there seems to be no single best way to teach. Specific situations are characterized by differences in the people involved (teacher and students), differences in basic ideas and subject matter, and differences in the limitations of physical conditions. However, when these characteristics are given specific meaning, one approach to teaching may be superior to others in that situation. A female history teacher with a given background and interest in history, teaching adult students in an evening college for the first time will develop a "best" way of teaching in that situation. Her teaching, therefore, is likely to be different from that of another person in the same or in another situation. The model teachers demonstrated dramatically differences in methods of teaching. They exposed different personalities at work on different subject matters.

December 11, 1957

Two guest lecturers were requested to illustrate a directive method of teaching. Dr. Little talked about "The Next Ten Years at UB." Dr. Berg lectured on "Rocket and Jet Propulsion."

Dr. Little:

A. Teaching techniques used by Dr. Little

1. Four physical objects were brought in
   a. a map of the eighty acres which UB expects to acquire
   b. a lamp of learning in a glass case
   c. a piece of tile brought over from the old campus
   d. a number of published reports
2. The lecturer had an outline on his desk to which he referred often. In presenting a series of ideas, he said, "first, then second, then third, etc."
3. Important ideas were repeated slowly.
4. Direct quotations were read from the original source.
5. Midway during the lecture, he asked for ideas from the class. These ideas were put on the board. In some cases, the lecturer edited some of the ideas, hence giving an opportunity for making value judgment. The lecturer frequently made reference to the kind of audience he was speaking to, acknowledging both their experience and inexperience. He used current events as a means for ascribing to the audience some knowledge which they might not have had but should have had.
6. At the end of the lecture, he made a summary of the important ideas.

B. After this presentation, several ideas about these techniques of teaching were discussed. The question was asked if the same amount of information received from the lecturer could better have been presented by a dittoed report. The class seemed to feel that there was something over and beyond information which was given by the lecturer. When pressed, however, they were somewhat unable to describe what the additional something was. Gradually through discussion, it appeared that the lecturer was using information to persuade. Should a teacher try to persuade students? If a teacher feels that persuasion to a point of view is correct, then how does the teacher handle those students who on responsible grounds wish to disagree with the point of view the teacher is trying to persuade them to accept? Assuming that the teacher is successful at the moment, that is, is compellingly persuasive, what happens to students who are at another time in the audience of an equally persuasive speaker holding a different point of view? Will they be persuaded to accept something contrary to their earlier acceptance? If they are, then the first part of teaching is wasted. As the old saying goes, "A man persuaded against his will remains of the same opinion still."

C. Dr. Little called attention to one thing which he felt was very important for any teacher to do. He felt that a teacher should never sit behind his desk and lecture. The reason for this tactic was that the teacher can be in control of the situation more easily if he is standing and his students are sitting. Walking around the room was helpful; being animated in general is a way to encourage "contagious enthusiasm."

The Interns took notes. When asked why they took notes, they didn't know. The apparent reason was that they assumed it was a lecture, and the outlines or categories which the lecturer gave to the class seemed to call for writing them down.

Dr. Berg:

A. Dr. Berg lectured on the general proposition that Newton's second law of motion, known for over two hundred years, provides a very adequate explanation for rocket propulsion. In making this general point, Dr. Berg did a number of things:
   1. He wrote his formula on the board.
   2. He used "homey" examples, such as a garden hose, or a boy in a boat.
   3. Current events ("Sputnik") were used.

B. Comments:
   1. The most striking difference between these two lecturers was the absence of persuasion in the second lecturer. The second lecturer made no attempt to persuade his audience that they ought to believe his general propositions. Some criticized this lecturer for not being really interesting to them. What they meant by this conclusion was that they were not personally and immediately involved in the content, which suggested they had a passing interest in "Sputnik." Few of the Interns took notes, even though the lecture was obviously well organized. The second lecturer, like the first, had a pleasing manner, used humor effectively, obviously knew what he was talking about, and was obviously interested in the material. Yet with all these similarities, there was no doubt but what the first lecturer was more "interesting."
   2. We tried to analyze the reasons for this conclusion. One thing which the second lecturer did was to attribute to his class, experiences that they did not have. He said, "I am assuming you are juniors in engineering." Save for the four engineers in the class at the time, this ascription of experience was obviously false. A teacher cannot give to students verbally experiences they have not had actually. The fallacy perhaps characterizes most unsuccessful teaching. The teacher who says to his sophomore class, "You will need this in a few years when you are in the work-a-day world," may be right in his prediction. But the hoped-for education effect, i.e., interest, motivation, concern for information, is not achieved by didactic edict. The general conclusion to be drawn is that in teaching one must take the students where they are in their experience because they are there and no place else.

December 18, 1957

The purpose of the meeting Wednesday evening was to demonstrate non-directive teaching theory and techniques. Toward this purpose two speakers were used, Mr. Duroff and Professor Brew.

Mr. Duroff began his session by saying that he was going to think about the problem of "teaching, communication: a two-way process."

A. He set the plan by saying, "I am a stranger to you. Will you please help me to help you by telling me what your concerns have been in previous sessions." At this he stopped. There was a silence of two minutes. He then said, "I am open to contributions. It doesn't have to be my way; it can be yours." Quinn and Carlson made a comment to which Mr. Duroff added nothing. There was another silence of about five minutes. Mr. Duroff said, "My approach may be quite unexpected. I am turning the tables on you. Do you people like to be taken by surprise?" After another long silence, Carlson said, "You are not co-operating." Mr. Duroff reflected this comment that maybe the teacher and the class had reached an impasse. "I am not co-operating so you won't. Two can play at this game. I am not sticking my neck out until I know what you (the teacher) want. Unless I can give a grade A response, I won't because I want an A grade."

B. The teacher refuses to give approval; students feel uneasy when the teacher does not approve or disapprove of their response. This condition points up the fact that in our culture students have a great need to seek the teacher's approval in order to know what correct response should be given.

C. Norton said that it was the mark of an educated person to be amazed at nothing. Yet it seemed quite evident that the class was amazed, in wonder, in attitude, in uncertainty, in general uneasiness. One student suggested we were wasting time. Another suggested that this was a wonderful demonstration of how not to do it, i.e., negative teaching. This remark was reflected to mean "you feel that I could not be so stupid as to do this for no reason. Therefore, you graciously get me off the hook by suggesting that this is a model of what is bad."

D. Rodgers contrasted two methods of teaching which we had experienced previously and asked Mr. Duroff which of these two he thought was right, to which Mr. Duroff said, "The first principle of teaching is that one must first establish a state of readiness in the student." Perry suggested that students are ready for anything but exams—they are ready for a date, for a football game, etc. Mr. Duroff suggested, "You do not trust students' wanting to learn."

E. After another exchange of opinion in which Mr. Duroff was accused of being as inert as a telephone pole and not helping in any way, he suggested that the class itself had not answered the first question. The class continually moved to ask for content, that is, they wanted Mr. Duroff to tell them something, whereas he was stressing process. At this point Thompson asked him to write on the board his initial question, which Mr. Duroff did. Thompson suggested that Mr. Duroff was demonstrating an attitude of a student who is unable to think with a teacher. Thompson was trying to make a very subtle point that some students really want to learn but can't seem to find the right handles. They cannot communicate their inadequacies to the teacher; and feeling this, they cannot express that point at which learning must be started. How does it feel to want to know something and be frustrated because

you cannot express even your ignorance? Mr. Duroff made the point then that it is fitting and proper that we learn how to admit our ignorance and inadequacies and that the first thing that any student must learn is that there is something that he does not know. Our typical methods of teaching, however, never allow, much less encourage, students to admit this to themselves. As a consequence, most people do not know why they are learning; and the result of education is a superficial overlay rather than the inner penetration of ideas with feelings.

F. Dodd suggested that actually Mr. Duroff was making them think. He was teaching higher mental processes, and he was using the resources contacted within the group. He suggested that the teachers were in the group rather than that Mr. Duroff was the teacher. A cross fire of ideas and an exchange of opinion within the group had occurred. Different levels of sensitivity, different insights, different ideas emerged as a result of what Mr. Duroff was doing or not doing. Mr. Duroff reflected this idea by contrasting two kinds of teaching. "In the usual case the teacher is like a little sun radiating lights to each student individually. In the other case the teacher creates a matrix or web of communication among and between students."

G. By reflecting ideas and feelings, Mr. Duroff was actually clarifying. Some students did not like their own words or ideas when they were simply reflected back to them. Some said, "No, I was not saying that," etc.

Mr. Duroff analyzed his approach:

A. Silence is not a bad thing. Culturally, however, we are conditioned to cover up embarrassing silences with empty words. The college teacher should not be upset at silence because silence is a most elemental basis for communication.

B. Anxiety and hostility is not a bad thing either. Out of anxiety comes effort to resolve anxiety. The teacher, however, must not take the expression of anxiety personally. The teacher must not panic because, in fact, he is doing his job of creating an atmosphere in which people <u>really</u> begin to think.

C. The teacher, using this approach, contributes positively to the acknowledgment of the fact that students do not come to class empty-headed. Students bring with them a variety of resources which it is the job of the teacher to mobilize so that students may actually build up from what they really know.

D. The usual conception of teaching is that of a group of students without any ideas but presumably with an open mind waiting to be filled. They are bored and waiting to be entertained. They are characterless waiting to be driven and led to what they ought to want to do anyway. Students ought to want to be interested. If they are not interested, then we must make them, must coerce them, must do it for their own good.

Evaluation of the session.

A. Mr. Duroff analyzed his technique the next day. He reported that he could have improved his presentation by giving them an anal-

ysis of what happened in the group process. In his analysis he noted the following sequence of events:

1. The first reaction was one of recalcitrance. From this feeling, the group moved into antagonism. One member said he would just as soon talk to a telephone pole.
2. The group moved into a deeper feeling of resentment.
3. From resentment they moved into intellectual charges against the group leader. They said he had created a vacuum here. The statement about being amazed at nothing illustrates this state of feeling.
4. Next the charges became personal. They said the group leader was without feeling.

B. It was at this point, according to Mr. Duroff, that the group derived pleasure and strength from seeing that the group leader did not break when subjected to these charges. Mr. Duroff said, "There was an empathic, non-verbal force at work." There must have been some reason why the group leader was doing what he was doing, and he must have known what he was doing, as he was able to take the gaff of the group. Mr. Duroff noted that at no time did he act flippant. He did not let himself be drawn into the temptation to manipulate people by stepping on their feelings. He contrasted his behavior with that of the other teachers who shuffle ideas in order to outwit the student. At approximately the same point in this process, Mr. Duroff turned to Dr. Gowin and asked him the direction the group should follow. The reply was that the group process was going along beautifully and that good progress was being made. Two or three students began to think at this point. There was a definite transition from the earlier anxious moments into moments of clarification and enlightenment. Gates asked if the group leader was not helping us to find out what we mean with our own words and ideas by reflecting them back to us. Thompson took note of the condition of the bewildered student and suggested that we might be seeing how it seems to be a bewildered student. Dodd pointed out the fact that there was a web or matrix of mutual interaction among students of the group.

C. Mr. Duroff predicted that some members of the group would continue to be in disagreement with him. He said the reason for this was that he did not help them to contain their own anger. They lost their own self control (i.e., a superficial set of rules) in trying to get him to do something more like a regular school teacher. But he wouldn't. They were arguing and then they felt guilty about having others argue and having lost their own self control. These people will draw the wrong conclusion from the experience. They will make an inference to self-righteousness. They will say, "How necessary it is to maintain the typical authoritarian pattern in the classroom." It is necessary to do this to keep the students under control, but what they really mean is that it is necessary to maintain the typical pattern of authority in order to keep themselves under control.

The day after Mr. Duroff's presentation, the following letter was received. It is included because it seems to represent an articulate expression of the feelings of many of the participants.

December 19, 1957

Dear Dr. Gowin:

If, as you say, perplexity is one of the conditions for learning, then I must agree that we had a wonderful lesson last night because we had plenty of perplexity. (Personally, I have enough left over to last a day or two I think, and that is one of the reasons I am trying to clarify some of my thought by putting them on paper.)

During our first session with Mr. Duroff, I was by turns disappointed, bewildered, and annoyed by his technique; and I was embarrassed to see that we, as a group of prospective teachers, couldn't make even one comment which he deemed worthy of further discussion. I felt as if I had been expecting to enjoy a lively tennis match; and, by some mistake, I was being forced to watch a chess tournament instead. When it became obvious that anything we said was just going to fall with a dull thud, I began to feel that if he isn't going to say anything, why should I.

After all, he was presented to us as an expert in the field of educational psychology; and in view of this, I felt, as the saying goes, "Sometimes it's better to keep your mouth shut and be thought a fool, than to open it and remove all doubt."

At the intermission I told one of the other students that I would like to say, "Come now, Mr. Duroff, turn on your other personality and let's see what you can do," and the response was, "I think he doesn't have any other personality." After our second round with Mr. Duroff I felt this remark was quite close to the truth.

When Mr. Duroff offered to turn the class over to you and you said that you were quite pleased with the way things were going, I really was amazed and began to distrust both of you. I felt that the two of you were conspiring against us in some kind of a hoax, possibly some new trick of group psychoanalysis.

Since my experiences with college teachers are rather a dim memory now, I have particularly enjoyed and valued these recent demonstrations of current teaching techniques. Comparing them with the Air Force training film, which we all agreed was a bit too theatrical and sales-pitched, further intensifies my belief that nothing is as effective and convincing as a real live demonstration.

Even when Mr. Duroff explained what he had been doing, I still didn't believe it. While my first reaction to him and his method was negative, the more I think about it the more willing I am to concede that, regardless of his specific aims, he was provocative. And that was one quality which he claimed for his method. I believe his method also was called reflective, but I am still wondering if he did more reflecting of our ideas than we did reflecting of his indifferent attitude. During the class period I felt that most of us were not reflecting upon the suggested topic, a review of our previous class work, but were just watching the performance to see what would happen next. But now, 24 hours later, I am still reflecting and wondering if perhaps this non-directive approach has more to it than meets the eye. By comparison, the previous demonstrations by Dr. Little and Dr. Berg were much more definite, enjoyable, and satisfying

2

—and easily forgotten. But this last demonstration had kind of a mystifying quality about it that will make it return to haunt me from time to time. I feel that I owe Mr. Duroff an apology for all the unkind things I thought about him last night.

Sincerely yours,

Ayers

Professor Brew began his work by having all the students receive a copy of several paragraphs written by different writers of value theory.

A. Professor Brew started his teaching with a current statement of evaluation. "Suppose," he said, "that we have a supervisor watching a teacher and marking down in his little book what he thinks the teacher is doing. How can a supervisor or external evaluator correctly evaluate teaching? Should the supervisor know what the teacher was trying to do, what his aims were?" Professor Brew made the point that we should evaluate teaching in terms of what the teacher is trying to do. Dr. Gowin asked if we would apply this same idea to Fagan's School of Thieves. Was he a good teacher? Some students said that they didn't like what Fagan was trying to do. This points up the conclusion that we evaluate teaching in terms of aims. Professor Brew suggested that we could give students the final exam on the first day of the course as a way of saying, "This is what our aims are."

B. What are good aims? After much discussion in which phrases were used like "good aims," or "aims we approve of," "we approve of them because they are good," it became obvious that there was an infinite regress from one idea of good to another idea of good, etc. Professor Brew suggested that without saying which aims are the good ones, since people have disagreed about the nature of good from time out of mind, we say the necessity is having aims. Aims are good for three things:

   1. They limit and give direction to the teacher and the student.
   2. They can be used to evaluate what has been done.
   3. They ought to motivate learning.

Professor Brew suggested that they move from a discussion of evaluation to two aspects of value: what do we mean by value, and how do we compare (measure) value? Professor Brew suggested that value could be defined in three contrasts:

A. Value is inherent in the object.

B. Value is inherent in the subject, i.e., in desires, wants, and feelings of people.

C. Value resides in relationship between subject and object.

Professor Brew discussed his technique of teaching.

A. He said that he had reason for presenting a variety of different points of view about value. He said his reason is that we must

get students to think; and if we are to get them to think, we must present contrasting, contrary ideas. We must put the students' own points of view in jeopardy.

B. Professor Brew said that he had a point of view even though it seemed that he was taking all points of view. There was one point of view which he wished to persuade to. That point of view is this: we must get people to be tolerant of other's points of view. He wants to teach students how to disagree, without being disagreeable.

Postscript to Chronological Log

The chronological log of the preservice seminar seems to be very rich in meaning, suggestion, and implication. It is not likely that all the Interns drew the same conclusions from each session. They were engrossed in their own learnings and involved in their assignment to fashion their own course of instruction. A few Interns did take notes, but not with the fervor of some undergraduates. This fact—that most Interns did not take notes—helps to point up the observation that a literal record of a linear progression of events would have been misleading; it would have missed the vital process of reconstruction of points of view which seemed to be underway during most of the sessions.

The relevance for education of the excerpted sessions is not far to seek. The viewpoints of rationalism and empiricism, of authoritarianism and non-authoritarianism are epitomized by the model teachers. For example, in one session a directive (rationalistic) and persuasive (authoritarian) model teacher is juxtaposed against a directive and non-persuasive model teacher. In the next session a non-directive, non-authoritarian group-centered model teacher is juxtaposed against a non-directive but teacher-centered model; these model teachers exemplify the virtues of non-authoritarianism and open-ended empiricism. From these sessions as well as from others the Interns found substance and succor for their own growth.

The model teachers could easily be termed "gifted" teachers. All were outstanding. Notwithstanding, the Interns were asked to criticize the model teachers. The Interns were asked not only to be critical of the model teachers, but were expected to go ahead and differ from them in teaching. It was expected that the model teachers would be different from each other and present different points of view; hence, the Interns could not copy each model. In fact, the Interns would have to be very different from some of the outstanding model teachers.

Finally, it may be said that the several sessions carried out most of the six basic principles of the pedagogical theory. Heterogeneity of personnel, interaction of belief and behavior, cognitive perplexity, alternative and competing points of view, the usefulness of a framework of thought, and the application of theories to practice are found here. The general aim was to change attitudes toward greater logical consistency of ideas about education. This aim was achieved. A brief documentation of the experiment is to be found in the next section.

Conclusions: Evaluation of the Experiment

The basic theme threaded throughout this study is simply that college teaching is a profession. If, therefore, professions tend to have some fundamental tenets in common, then to prepare a person from another profession (e.g. research chemist, historian, writer) for pursuing the profession of college teaching, one must expand and enlarge the areas the two professions have in common. Professions, it is assumed, are marked off by their interest in theoretical concerns. Hence, the preparation of new college teachers ought to stress theory: theories of knowledge and value (from philosophy); theories of learning (from psychology); and theories of group processes (from sociology). The teacher of history, or of physics, or of English, makes a number of tacit assumptions about knowledge, value, and learning; the task of a preparation program is to make such assumptions explicit as a way of providing "hand-holds" (categories of thought) for the neophyte. Once these basic ideas are made explicit and their relevance discovered, it remains only for the professional person to learn to pursue his discipline in an expanded framework of educational theory to become a person worthy of being a college teacher.

With these considerations in mind, an experiment was designed to determine whether a preparation program could modify attitudes and ideas of a selected group of potential part-time college teachers.

A test (the GNC scale)[3] for logical consistency (cognitive attitude) and a test (the WSF scale)[4] for authoritarianism (affective attitude) were

---

3. The initials GNC derive from the first letters in the authors' last names; see D. B. Gowin, G. L. Newsome, Jr., and K. A. Chandler, "A Scale To Study Logical Consistency of Ideas about Education" (to be published, 1960).

4. For the rationale, scale items, and other information see H. Web-

used. Testing occurred three times: September, January, and June. The control group was tested two times but did not undergo the preparation program. The experimental group underwent a preservice seminar (September to January) and the teaching of one course in its field (January to June).

Two of the three major hypotheses were positively supported by the experimental evidence. First, it was shown that Interns who experienced the preservice preparation program exhibited increased theoretical consistency ($P = .01$) and decreased authoritarianism ($P = .01$). Secondly, it was shown that Interns who experienced the actual teaching situation decreased in theoretical consistency and increased in authoritarianism, but not enough to lower significantly the gains derived from the preparation. At the end (June), Interns' scores were significantly different from initial scores (September) in predicted direction (i.e., toward consistency and away from authoritarianism). In other words, the cognitive and affective attitude changes wrought by the preservice experience withstood the tests of actual teaching. The control group did not shift consistently or significantly in any direction during the period of the experiment.

A third hypothesis was not unequivocally supported. Interns who shifted toward greater consistency were not rated by students as "better" teachers than those who did not so shift. However, the experimental group of Interns (which did as a group shift toward greater consistency) was rated as the equal of experienced full-time faculty members. The methodological problem of student ratings was not sufficiently solved to supply a definitive test of this third hypothesis.[5]

In conclusion, theoretical consistency and nonauthoritarianism were shown to be complementary, and they seemed to be compatible with philosophic empiricism. Theoretical consistency, nonauthoritarianism, and philosophic empiricism suggest a positive but open-ended view of teaching. This view supports the conception of college teaching as a profession

---

ster, N. Sanford, and M. Freedman, "A New Instrument for Studying Authoritarianism in Personality," The Journal of Psychology, Vol. 40, 1955, pp. 73-84.

5. For a discussion of this methodological problem, including an interpretation of the failures of most student rating forms, see D. B. Gowin and D. E. Payne, "Evaluating Instruction: Cross-Perceptions of College Students and Teachers" (to be published, 1960).

based upon a structured body of professional knowledge that in turn is based upon consistently reasoned theory. The evidence seems to reject the notion that college teaching need be chiefly the imitation of master teachers, or a handbook of "tricks," or simple guesswork compounded into a cumbersome routine. The evidence indicates that the philosophical-psychological-sociological theory with which the Interns struggled in the seminar had a measurable effect upon the modification of their attitudes. The theory was taught in a context which made it the chief instrument for determining techniques and methods to be used in a given situation. Theory, in freeing the teacher from imitation and immediacy, seemed to promote the use of intelligence and creativity in meeting teaching problems. Furthermore, theory is nowhere more important than when the knotty basic issues in education—freedom and authority, the nature of knowledge, the bases of knowledge, the bases of values—are confronted directly rather than passed over with reference to the often skimpy and superficial "philosophy of our college." Teachers can learn theory. Theory can be taught in terms of criteria of use (e.g., heuristic, helpful in making decisions, comprehensive, systematic). Theory, while difficult, is not so forbidding as to be impossible. Mature individuals do respond to the challenges of both basic issues in education and the subject matter of education—sociology, psychology, philosophy.

APPENDIX

Pre-Service Education Program for the Part-Time College Faculty Members

SECTION I—ORIENTATION, INDUCTION, AND TESTING

The First to Third Sessions

I. Formal announcement of the First Meeting
   - A. Welcome letter
   - B. Time schedule; catalogues; university map; car sticker; parking data
   - C. Invitation to reception for all faculty members

II. Induction Dinner Meeting
   - A. Short meeting of sponsors prior to dinner
   - B. Introductions during dinner meeting
     1. Assignment of sponsor
     2. Biographical details—written
   - C. Historical data on University
   - D. University ideals and policies

III. Experimental Research Program—First Testing

SECTION II—TEACHING IN COLLEGE

Fourth to Fourteenth Sessions

A. You as part of the teaching profession
   1. Brief history of profession; why is it a profession
   2. Academic freedom, the search for truth, professional attitude
   3. Character of a community college

B. Departmental Orientation
   1. Meeting with department
   2. Discussion of fields taught and specific course assigned to new person
   3. Teaching materials available
      a. Texts, manuals, tests, films, library, outlines, bookstore services
      b. Other services available (duplication, secretarial)
   4. Sponsors complete report of what actually happened and return to co-ordinator

C. Observation of College Teaching
   1. Preparation and arranging for observation
      a. Film "Tips on Teaching"
      b. Paper "On the Anatomy of Teaching"

2. Observing a departmental class
3. Follow-up discussion

D. The student as a learner (two sessions)
   1. Panel—college students
      Behavior patterns
      a. Maturity levels
      b. Variety
      c. Aims and objectives
      d. Backgrounds
   2. Guest Lecture
      Higher Mental Processes in Higher Education
      a. Critical reading of essays on college teaching
      b. Demonstration of the "shared inquiry" technique of teaching

E. The Learning Process
   1. Lecture—Behaviorism vs. Gestalt-Theorie
      a. Kinds of knowledge
      b. Introduction to theories of learning
      c. Application and choosing right one
   2. Panel: "Is Quality in Higher Education To Be Lost with Increased Quantity?"

F. Planning and Teaching (two sessions)
   1. Major concepts in planning a course of instruction
      a. Three Phases of Planning
         (1) Aims of teaching; appropriate theory of knowledge
         (2) Methods and techniques of teaching; appropriate theory of learning
         (3) Evaluation of teaching; appropriate theory of value
      b. Methods of Approach
         (1) Outlines (course planning)
         (2) The teaching plan (daily preparation)
         (3) Planning the physical environment
         (4) Maintaining proper educational atmosphere
         (5) Testing and measuring
         (6) Film "The Lesson Plan"
   2. Evaluation of Teaching
      a. Subjective theories of value
      b. Objective theories of value
      c. Interactional theories of value

G. Teaching Techniques (two sessions)
   (model teachers)
   1. Directive (demonstrated to Intern)
      a. Lecture
      b. Defense of approach
      c. Discussion
   2. Non-Directive
      a. Lecture of presentation
      b. Defense of approach
      c. Discussion

H. Review of Seminar
   1. Theories presented
   2. "Major Concepts" paper evaluated and discussed

SECTION III—DUTIES AND RESPONSIBILITIES OTHER THAN TEACHING

Fifteenth and Sixteenth Sessions

A. Official
   1. University procedures
      a. Grade books, grades
      b. Communications, pay
   2. Advisory program and assistance
   3. Registration procedures and assistance

B. Unofficial
   1. University functions
   2. Fraternity life and assistance

SECTION IV—EXPERIMENTAL RESEARCH PROGRAM—SECOND TESTING

Seventeenth Session

SECTION V—IN-SERVICE MEETINGS

Eighteenth to Twenty-Third Sessions

Individual conferences and small group sessions during first teaching assignment. (Voluntary)

SECTION VI—EXPERIMENTAL RESEARCH PROGRAM—THIRD TESTING

Twenty-fourth Session

BIBLIOGRAPHY

Ackerman, Walter I., "Teacher Competence and Pupil Change," Harvard Educational Review, Fall, 1954, pp. 273-289.

See, American Association of Colleges of Teacher Education, 2nd yearbook, 1949.

American Council on Education, Improving College Instruction.

Bagley, William C., Education and Emergent Man; A Theory of Education with Particular Application to Public Education in the United States, Thomas Nelson & Sons, New York 17, N.Y., 1934.

Baker, J. E., "Victorian Chronology of our Liberal Education," Journal of Higher Education, Vol. 18, p. 407, November, 1947.

Barzun, J., Teacher in America, Doubleday Anchor Book, 1954.

Blazer, Theodore C., and Cooper, Russell M., Preparation of College Teachers, American Council on Education, Washington, D.C., 1950.

Bode, Boyd Henry, How We Learn, D. C. Heath & Co., Boston, 1940.

Brownell, B., "Dilemma of Higher Education," Journal of Higher Education, Vol. 23, pp. 345-349, October, 1952.

Carnegie Foundation Report, School and Society, Vol. 72, pp. 392-393, December 16, 1950.

Carter, Nathaniel, Dynamics of Learning, Foster & Stewart Publishing Corp., Buffalo, N.Y., 1946.

Center for the Study of Liberal Education for Adults publications:

"Adult Education and Adult Needs," A Report, 1956.

"Television and the University," A Report of the Committee on Educational Television of the University of Chicago. (Notes and Essays, No. 5.)

Malamud, Daniel, "A Participant-Observer Approach to the Teaching of Human Relations Classes," February, 1955. (Notes and Essays, No. 10.)

Murphy, Gardner, and Kuhlen, Raymond, "Psychological Needs of Adults," April, 1955. (Notes and Essays, No. 12.)

Hill, Ida and William, "Learning and Teaching through Discussion," October, 1955. (Notes and Essays, No. 22.)

Schacht, Robert, "Weekend Learning in the U.S.A.," April, 1960. (Notes and Essays, No. 29.)

Miller, Marilyn, ed., "On Teaching Adults: An Anthology," May, 1960. (Notes and Essays, No. 32.)

Cogan, M. L., "Toward a Definition of Profession," Harvard Education Review, Vol. 23, p. 33, Winter, 1953.

See entire issue, College and University, Vol. 26, October, 1950.

College Teachers and College Teaching; An Annotated Bibliography on College and University Faculty Members and Instructional Methods, compiled by Walter Crosby Ellis, Southern Regional Education Board, Atlanta, Ga., July, 1957.

Committee on Utilization of College Teaching Resources, Better Utilization of College Teaching Resources, The Fund for the Advancement of Education, 477 Madison Ave., New York 22, N.Y., 1959.

Cowley, W. H., "Higher Learning via Higher Education," Journal of Higher Education, Vol. 25, pp. 401-410, November, 1954.

Cronkhite, Bernice B., ed., A Handbook for College Teachers, Harvard University Press, Cambridge, Mass., 1950.

Dale, Edgar, Audio-Visual Methods in Teaching, The Dryden Press, New York 16, N.Y., 1947.

Davies, Robert M., Jr., "The Effective Teacher," Journal of Higher Education, Vol. 28, pp. 239-245, May, 1957.

See, Dewey, J., "Setting Objectives," Society, 10th Yearbook.

Diekhoff, John S., Tomorrow's Professors, A Report of the College Internship Program, The Fund for The Advancement of Education, 477 Madison Ave., New York 22, N.Y., 1959.

Dressel, Paul, Research in General Education Instruction, Association for Higher Education, 1201 Sixteenth St., Washington 6, D.C., 1955.

Eckert, R. E., "New Design of Training College Teachers," Junior College Journal, Vol. 18, pp. 25-33, September, 1947.

Elder, F. K., "Improvement of College Instruction," Educational Administrator and Supervisor, Vol. 35, p. 475, December, 1949.

Ferment in Education, University of Illinois Press.

Getzels, J. W., "Learning Theory and Classroom Practice in Adult Education," Learning Theory Series, Syracuse University, Syracuse, N.Y., May, 1956.

Godfrey, Tom P., "The Seven Deadly Sins of Teaching," ASEE Proceedings, 58, 213 (1950-51).

Goode, Delmer M., Seventy College Teaching Procedures, Bulletin, Graduate School, Oregon State College, 1952.

Guthrie, E. R., The Evaluation of Teaching, University of Washington, 1954.

Hawks, Lindquist, Mann, and others, The Construction and Use of Achievement Examinations, Houghton, Mifflin Co., New York, 1936.

Heer, Amos, Steps to Better Teaching, W. W. Norton & Co., Inc., New York, 1937.

Highet, Gilbert, The Art of Teaching, Alfred A. Knopf Co., New York, 1950.

Hintz, H. W., "Aims of College Teachers," School and Society, Vol. 71, pp. 193-196, April 1, 1950.

Hofstadter, R., and Hardy, C. D., Development and Scope of Higher Education in the United States, Columbia University Press, 1952.

Hook, S., "Perennial and Temporal Goals in Education," Journal of Higher Education, Vol. 23, pp. 1-12, January, 1952.

How To Instruct, Instructor's Guide (TO 30-1-3), U.S. Army Air Forces, Washington, D.C.

See, Hullfish, et al., in Proceedings of Institute for Administrative Officers of Higher Institutions.

Kelley, F. J., "Preparation of College Teachers: Report of Conference," Higher Education, Vol. 6, pp. 125-131; 143-147, February 1, February 15, 1950.

Manning, J. B., "Conflicting Views in Higher Education," Journal of Higher Education, Vol. 21, pp. 26-30, January, 1950.

Manual for Instructors (MC S Z-6) (NAVMC-3893), U.S. Marine Corps School, Marine Barracks, Quantico, Va., 1945.

McGeary, M. N., "Appraising Professors," American Association of University Professors Bulletin, Vol. 33, p. 695, December, 1947.

McGrath, E. J., "Education of College Teachers," Educational Record, Vol. 30, pp. 366-374, July, 1949.

McMahon, Ernest E., The Emerging Evening College, Columbia University, 1960.

McPheeters, A. A., "Toward Improving College Teaching," Association of American Colleges Bulletin, Vol. 38, p. 564, December, 1952.

Methods of Teaching, Quartermaster Handbook, U.S. War Department, Office of the QM General, Washington 25, D.C.

Military Instructional Techniques (Manual ST 21-6-1), Headquarters, U.S. Army Signal School, Fort Monmouth, N.J.

Morris, Fred C., Effective Teaching, McGraw-Hill Book Co., New York, 1950.

Mursell, James, Successful Teaching, Its Psychological Principles, McGraw-Hill Book Co., New York, 1946.

Neff, F. C., "Confusion in Higher Education," Phi Delta Kappan, Vol. 34, pp. 211-214, March, 1953.

Pace, C. R., "Preparation of College Teachers," Review of Educational Research, Vol. 19, pp. 230-234, June, 1949.

Pennsylvania University, School of Education, Critical Problems in Education.

"Place and Function of Faculty," American Association of University Professors Bulletin, Vol. 39, pp. 300-318, June, 1953.

Pratt, Willis E., "Can College Teachers Improve Instructional Practice?" Teachers College Bulletin, Vol. 60, no. 3, pp. 24-28, 1954.

See, Proceedings in American Philosophical Society, Vol. 94, November 2, 1950.

Quillian, F., "Philosophy of Christian Higher Education," Association of American Colleges Bulletin, Vol. 39, p. 481, October, 1953.

"Reappraisal of Philosophy and Purposes of Higher Education," Educational Record, Vol. 34, pp. 231-244, July, 1953.

Report of the Committee on College and University Teaching, American Association of University Professors, Washington, D.C., 1933.

Rogers, Carl R., Client-Centered Therapy, Miffling Co., New York, 1951.

Rogers, F. M., Higher Education in the United States, Harvard University Press, 1952.

Russell, J. D., "Critical Issues in Higher Education," North Central Association Quarterly, Vol. 22, pp. 149-161, October, 1947.

For selected references on Higher Education, see, School Review, Vol. 55, pp. 610-619; Vol. 56, pp. 611-618.

Smith, T. V., "Axiological Orientation of Higher Education" (in Conference on Science, Philosophy, and Religion in Their Relation to the Democratic Way of Life), pp. 31-53.

Stoddard, G. D., "Matrix Theory of Higher Education," Educational Forum, Vol. 12, pp. 133-138, January, 1948.

Studying To Learn, Air University, Maxwell Air Force Base, Alabama.

Sunderman, L. F., "Philosophical Reconstruction of Higher Education," Education, Vol. 70, pp. 607-613, June, 1950.

Sweigert, Ray L., "Application of Educational Philosophy to the Educational Process in a Professional Engineering Course," Journal of Engineering Education, Vol. 24, pp. 217, 1933.

Sweigert, Ray L., "The Nature of Good Teaching," Journal of Engineering Education, Vol. 42, p. 29, 1951.

Sweigert, Ray L., "The Triumvirate for Improving and Maintaining Good Teaching," Journal of Engineering Education, Vol. 45, p. 120, 1954.

Taylor, H., Essays in Teaching.

Taylor, H. A., "Human Nature and Education," Educational and Psychological Monograph 8, Vol. 3, pp. 530-539; also National Association of Deans of Women Journal, Vol. 12, pp. 30-37, October, 1948.

Tead, Ordway, College Teaching and College Learning, A Plea for Improvement, Yale University Press, New Haven, Conn., 1949.

Tead, Ordway, "Major Issues in Today's Higher Education," College and University, Vol. 24, pp. 265-280, July, 1949.

Tead, Ordway, "Problems of First Principles in Higher Education," Educational Record, Vol. 29, Supplement, Vol. 16, p. 29, January, 1948.

Teare, B. R., Jr., "Teaching Methods in Engineering Analysis," ASEE Proceedings, Vol. 52, p. 599, 1943-44.

Technical Manual Army Instruction (TM 21-250), U.S. War Department, Washington, D.C., 1943.

Tenney, E. A., "Academic Treason in Liberal Arts College," Journal of Higher Education, Vol. 23, p. 287, June, 1952.

Thelen, Herbert, "Learning Theory and Its Application to Classroom Teaching," Learning Theory Series, Syracuse University, Syracuse, N.Y., May, 1956.

See, Toward Better College Teaching, Carnegie Foundation for Advancement of Teaching, 43rd report, 1947-48.

Ulich, R., "On the Rise and Decline of Higher Education" (in Conference on Science, Philosophy, and Religion in Their Relation to the Democratic Way of Life), pp. 1-18.

Weber, G. A., "Teaching and Learning in Colleges," Educational Administrator and Supervisor, Vol. 35, p. 295, May, 1949.

Williams, George, Some of My Best Friends Are Professors, Abelard-Shuman, New York, 1958.

Williams, K. R., and Jenkins, A. M., "Improving Instruction in Institutions of Higher Education," Educational Record, Vol. 29, pp. 145-161, April, 1948.

Williamson, A. O., "Effective Teaching at College Level," Association of American Colleges Bulletin, Vol. 33, pp. 645-651, December, 1947.

ERIC Clearinghouse

SEP 16 1969

on Adult Educa